THE TIMES
Higher Education
SUPPLEMENT

APT angry at closed shop agreement

by David Jobbins

A post-entry closed shop agreement between Leeds city council and the college lecturers' union has angered leaders of the Association of Polytechnic Teachers.

The union membership agreement means that all new lecturers recruited by Leeds Polytechnic and other colleges in the city must either be members of the 72,000-strong National Association of Teachers in Further and Higher Education—or agree to join.

New staff may be members of other unions—so long as they belong to Natfhe as well.

Chairman of the local APT association, Mr John Dawson, complained: "I do not think people should be either taken on for a job or not on the basis of whether they are prepared to join a particular trade union or not. They should be taken on for their ability to do the job."

APT believed the agreement still had to be finalised. Mr Dawson quoted from a letter from the city's director of education, Mr R. S. Johnson, indicating that although a proposal had been received, it would not be considered by the appropriate committee until early next term.

But the education authority confirmed this week that the agreement was already in force, having been agreed by the city council late last month.

Mr Mike Wilkinson, secretary of the Natfhe branch at the polytechnic, confirmed that although the agreement was technically in force discussions with the authority still had to take place on subsidiary issues such as the form of words to be used in telling applicants that a union membership agreement was in force.

He denied allegations from APT—and from polytechnic director Dr Patrick Nuttgens (himself a Natfhe member) that the proper consultation processes had not been followed within Natfhe.

Although the agreement was hurried through to beat the tougher criteria for membership agreements laid down in the new Employment Act, Mr Wilkinson emphasised it contained a "conscience clause" on the wider lines set out in the legislation.

The move arose from a change in council control in the May elections —and the new Labour authority offered membership agreements to a number of recognised trade unions. The proposal was referred to branches in all the Leeds colleges for discussions, he said.

He rejected the freedom arguments extended by APT and Dr Nuttgens: "What I am concerned about is that it costs a lot of association money to do the things we have had to do in the past few months—the cost of preparations for the Clegg Commission and the arbitration submissions for example —all paid from the subscriptions of our members.

The Leeds agreement is felt unlikely to be the beginning of a rash of similar deals, despite the fears frequently expressed by APT that Natfhe would like to seek closed shop agreements wherever possible.

Natfhe general secretary Mr Peter Dawson said this week that his executive had indicated to the association's conference three years ago that it proposed to take no initiative on seeking closed shop agreements. Neither had the executive ever considered the question of whether individual branches could or could not seek such agreements.



Twelve students from China have achieved the best A level results ever recorded at Bradford College, including 27 passes at grade A, six at grade B, and three at grade C. Pictured above are Wei Wang, Shao Xing Xhen, and Xiao Qing Ma, three of the group, who came to Britain last year as part of an experiment to help regenerate education after the cultural revolution losses. They are shown visiting a boutique in Bradford.

Councils consider plan for poly fees flexibility

A suggestion that polytechnics have more flexibility in setting fees for overseas students is being considered by local education authorities. The idea was put forward in a meeting between officers and divisors of local authority associations and the Department of Education and Science.

Polys have felt it wrong that they are treated differently to universities and believe that the fixing of fees for specific courses, while the universities were given minima and maxima within which to work, would reduce their competitiveness in the market place.

A paper is to be presented to the Council of Local Education Authorities' meeting in October and members are asked to make their views known before then.

A letter from CLEA to its members suggests that the minima for the year 1981-82 should be based on the full average costs recommended for this year. These are £3,300 for an advanced laboratory or workshop-based course, £2,400 for an advanced classroom-based course, and £1,890 and £1,380 for the respective non-advanced courses.

A DES official has written to local authority associations, saying that the Government's overriding consideration is that overseas students should not be subsidized through the education budget.

"We are not wedded to a particular line on full cost fees", the letter runs, "and it does seem at least worth considering whether in the public sector recommendations might in future be in the form of minimum and maximum fees (as in the universities) rather than the fixed fees based on average costs which we have adopted this year."

What is needed, the DES says, is a system which avoids subsidizing overseas students but which is flexible enough to allow for a reasonable match between what is charged and the cost to the institution of making the provision.

First classes for OU campus

Students will attend classes on the Open University campus for the first time next autumn when the OU begins a programme of lectures and evening courses supported by Oxford University.

Since the OU started up 10 years ago, the Milton Keynes site has been in campus without students. The development of advanced methods of distance learning means that there are no teaching facilities there except for postgraduates.

But the new venture will start off with a week of four lectures followed by a series of four courses which will be organized and taught by members of the OU's science faculty.

The lectures will be given by Professor Robert Smith, chairman of the committee of the engineering professors conference, who accused Sir Keith Joseph of recommending a body that lacked bite.

Professor Smith, who is also soon to be dean at Southampton University's engineering faculty, said that the Finniston report had recommended a statutory authority that would have given powerful direction to the engineering profession and in which academics would have had an important voice.

"An authority with legal powers would have been vital in helping the development of new engineering disciplines. These often bridge subject gaps between existing engineering institutions such as computing engineering which comes between electrical engineering and computing.

"Development of these new disciplines has not been aided in any way by the present chartered body, the Council of Engineering Institutions, and a single powerful body was what was really needed."

Hopes rise for mature students over teaching training places

Help for about 60 mature graduates, prevented by a drying up of funds from starting in October on the Government's crash training programme to produce teachers of shortage subjects, has not been ruled out by the Department of Education and Science.

Dr Rhodes Boyson, junior minister responsible for higher education, said on Tuesday that a decision would be made within a week.

"We do want these people. But there's no new money available in the middle of the financial year. We may have to be more concerned with avoiding a repetition of the situation next year."

He said about 100 applications from graduates, mostly in maths and the sciences and over 28 years old, were still outstanding but it was doubtful if more than half of these would be finally accepted. "I am not sure that they are all eligible to apply for a place on an ordinary postgraduate certificate in education course. So we are not saying to anybody 'You can't enter'."

But whether a student follows the Government crash course or a PGCE does make a big difference financially.

Acceptance on a PGCE course entitles the student to the standard mandatory award. But the Government special programme carries with it a grant of £63 a week, free of tax and other deductions, plus a dependant spouse allowance and possible travelling expenses.

While the scheme is administered by the Manpower Services Commission the cost appears on the DES bill.

The crisis results from a 30 per cent increase in applications this year. "We are trapped by our own success", Dr Boyson remarked. "We have already made 856 awards compared with only 480 last year.

"It would have been much more an acute situation if we had received only 200 applications for the £3.6m we had put aside for the scheme."

Serving teachers accepted for retraining in shortage subjects have not been affected. Special grants are available to enable local authorities to allow one-year secondments. Even then, most local authorities will not consider applications from teachers with less than five years' service.

The special retraining programme, also open to newly-trained teachers who have not succeeded in getting a job, was begun in 1977.

Transfer data centre delayed

A decision on whether to set up an information centre on credit transfers has been put back again while the group researching the question delays making its final submission to the Government.

The steering committee of the educational credit transfer feasibility study, directed by Paul Toyne at Exeter University, was due to make its report to ministers at the beginning of July.

A proposed delay of several weeks has now been extended further while the group adds more evidence to its submission which is likely to say that there is extensive support among educational institutions for a credit transfer service. Ministers are now unlikely to have a final report until October and may not make their decision until November.

The steering committee is to leave the very great concentration of resources on a few [illegible] deprivation. There is theoretical, economic and [illegible] for the policy [illegible] given to those few areas.

Lecturers influence face 'Joseph' threat

Britain's engineering professors and lecturers could be robbed of a vital role in influencing the profession as a result of Industry Secretary Sir Keith Joseph's recent decision to establish a chartered body to control its organization.

This is the view of Professor Robert Smith, chairman of the committee of the engineering professors conference, who accused Sir Keith of recommending a body that lacked bite.

Professor Smith, who is also soon to be dean at Southampton University's engineering faculty, said that the Finniston report had recommended a statutory authority that

NEXT WEEK

Kenneth D. Brown on continuing education
Bernard Williams on universities and the arts
Women in science
Columbia Film School

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Enrolment suspension crisis averted at Huddersfield Poly

by Paul Flather

A major crisis at Huddersfield Polytechnic, in which the Council for National Academic Awards has warned that all student enrolments for this year could be suspended if more money is not found, appeared to be averted this week.

The crisis, caused by a severe shortage of funds, has been building up throughout the summer with senior staff recalled from vacation to attend meetings all last week.

Much now depends on a crucial meeting next Tuesday when the finance subcommittee of Kirklees Council meets to consider an extra allocation of £100,000 for educational needs and materials for the polytechnic.

In a series of toughly worded requests the Council for National Academic Awards has told polytechnic staff, governors and the local education authority, that £481,000 is urgently needed to safeguard the standard of work and courses at Huddersfield.

The CNAA were alerted to the severe under-resourcing of the polytechnic through a series of review visits during the summer. Last week CNAA and Kirklees Council officers were locked in almost continuous negotiation to "find" the extra money.

Kirklees have repeatedly stated that no extra money was available for the polytechnic, one of the worst hit under last year's capping of the pool arrangements. The budget was cut by about 15 per cent to £12.5m.

A likely strategy to raise the £481,000 will involve:

- Major savings in staffing with posts frozen and early retirement and voluntary redundancy schemes.
- Essential repairs, including £152,000 for work on the engineering workshop roof to come from a separate council budget.
- An extra sum of £100,000 for leasing equipment and for materials for technical and science courses, to come from the council.

All parties are keen not to comment until after Kirklees has made its position clear. Dr Edwin Kerr the CNAA chief officer, said that if resources fell below certain levels the CNAA would have no option but to suspend enrolments on all courses.

"It is not for us to say in the final analysis how much money is available and how it should be distributed. But we have made our position clear", he said.

The polytechnic student union has deplored the attitude of the l.e.a. in holding back funds. "This position of uncertainty we have been left in has interfered with our work at the polytechnic. We deplore the position of having to go through Kirklees for every box of chalk we might need", a student union spokesman said.

It is a view strongly echoed by the polytechnic itself. The academic board wants an early resolution to the funding crisis. If money is not forthcoming it will have to consider the merits of "switching" internal funds to safeguard courses at the risk of undermining other polytechnic facilities.

An important issue has been the level of the student-staff ratio in the polytechnic. It stands at 7.4:1 more favourable than the national average. Kirklees is keen to reduce it fairly rapidly to save money, but the CNAA and the polytechnic want it done in stages.

The polytechnic has already been wracked by a long-running dispute with the l.e.a. over the findings of a controversial audit report alleging financial maladministration by senior staff. Sir Frank Layfield is heading an inquiry into the findings of the audit report.

Urban studies 'a waste'

Social science research aimed at revealing the causes of urban deprivation has resulted in a massive waste of resources because of poorly directed government policies, delegates were told yesterday at the British Association for the Advancement of Science meeting at Salford University, writes Robin Mackie.

A major culprit in this mismanagement was the introduction of the Rothschild reorganization of the research councils which allowed government departments to control council funds and directly commission research, argued Mr Christopher Stoddart, a recent research secretary at the Centre for Environmental Studies in London. In the case of urban deprivation, this was done by concentrating nearly all resources on investigating small inner city areas in a few large cities. In fact the use of the term 'inner city' became a necessary and almost sufficient condition of government funding or a social research project", Mr Stoddart said.

There was little evidence to justify the very great concentration of resources on a few [illegible] deprivation. There is theoretical, economic and [illegible] for the policy [illegible] given to those few areas.

Sociologists told to exploit gigantic research boom

from Peter David

NEW YORK

More than 3,000 sociologists, attending their discipline's biggest-ever gathering, were told last week to come out of their academic "closets" and exploit a gigantic boom in Government-funded applied social research.

Dr Peter Rossi, president of the American Sociological Association, told his members that, while economists, psychologists and educational researchers were cashing in on the boom, sociologists had remained aloof and regarded applied research as impure and of low quality. As a result, the discipline had missed out.

"During the past two decades, applied social research must be described as one of the growth sectors in our economy. Estimates of the amounts spent in the federal budgets of the past few years on applied social research in one form or another vary from a high of two billion (dollars) to a low of about one billion", he said.

"Whatever estimate one accepts the numbers indicate that applied social research is the strong and flourishing exception when compared to the support of basic research programme funds, which amount to only several hundred million for all the social sciences combined."

Sociology's disdain for applied research meant that instead of wallowing in prosperity, it was seeing most of the available funds snapped up by less flaccid disciplines and by non-academic research organizations which had expanded in response to the inflow of money.

Some of the larger research firms now dwarfed university social science departments, Dr Rossi said. The Rand Corporation in Santa Monica employed enough social scientists to offer its own PhD programme, and the research firm, Abt Associates, had more social science PhDs on its staff than any university in the Boston area.

Sociology should respond by revamping its undergraduate curricula to emphasize quantitative and policy-oriented research, Dr Rossi said. To compete successfully for the available funds, sociologists should set up special organizations linked to universities but able to tackle applied research tasks efficiently.

A commitment to applied research would also increase the intellectual health of the discipline.



Upper classes continue university domination

The domination of university places by students from middle and upper class homes is still on the increase, according to the first social analysis by the Universities Central Council on Admissions which was published yesterday.

Statistics for the three years ending with 1979 show a steady increase in the proportion of accepted candidates from the top two of the Office of Population Censuses and Surveys' five social groups. By last year, the two groups, which make up a quarter of the population, were taking almost two-thirds of new university places.

While the top two classes have increased their share in each of the last three years there has been a further decline among the skilled occupations, which constitute [illegible] the population. They took less than 30 per cent of new university places in 1979, while the partly skilled (17.8 per cent of the population) took only 5 per cent of places.

Those from families whose head is unskilled declined still further from 2.2 per cent of university recruitment in 1977 to a mere 1 per cent two years later.

The report shows an unexpected upswing in demand for university places, in contrast to the previous trend. With 5,000 more home candidates applying for places through UCCA and some 2,000 more accepted, the proportion of male applicants taken up in university courses fell by 1 per cent in 1979, while for women the decline was 3 per cent.

UCCA's forecast for 1980, made with the knowledge of almost all the year's applications, shows some fluctuation in a number of subjects and a marginal rise in overall recruitment.

The most dramatic improvement is in computer science, which is expected to recruit 4,450 students next month, compared with 3,888 last year and only 1,511 in 1975. Physics is also expected to produce a healthy increase for the fifth year in succession.

Civil engineering will show the most serious decline, numbers dropping by 1,000 from last year's figure of 8,191. Mechanical engineering is also expected to produce a reduced intake, but electrical engineering should continue its steady rise in popularity.

UCCA Statistical Supplement to the 17th Report 1975-9. PO Box 28, Cheltenham GL50 1HY. £1.75 + p.

Talks on reprieve for IUC

by John O'Leary

The basis of a settlement guaranteeing the future of the closure-threatened Inter-University Council for Higher Education Overseas was under discussion at three-sided talks in London this week.

If details of the agreement can be settled, the universities will retain control of IUC activities but the organisation would officially become part of the British Council. The proposals would have to be sanctioned by the IUC and individual universities in this country and, perhaps, abroad before they could be implemented.

Plans to close the council and pass its responsibilities to the British Council originated at the Overseas Development Administration and were supported in Sir Leo Pliatzky's White Paper on quangos. IUC activities were said to duplicate the work of the British Council and a merger was proposed for April 1981.

However, the universities have resisted the moves, claiming that the direct contact between institutions fostered by the IUC has always been the most economical method of dispensing higher education and overseas aid. Any method of operation will be retained if the current proposals are agreed.

This week's talks, involving representatives of the IUC, the British Council and the ODA, followed lengthy discussions in July when the universities put their terms for a transfer of responsibility.

Although the council is a limited company capable of resisting any change, indirect Government funding makes agreement to some new arrangement inevitable.

Mr Ian Maxwell, deputy director of the IUC, said the ODA was still hoping for a change of status at the end of the financial year but time was running short if all the universities were to be consulted. The council is expected to discuss the proposals in November.

The THES

The THES was not published last week because of a strike by members of the National Union of Journalists. We apologise to readers and advertisers for the inconvenience caused. The classified advertising that would have appeared last week is included in a specially extended section that starts on page 19.

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Graduates winning race for jobs

by Sandra Hempel

Graduate recruitment is holding steady despite the deepening recession according to latest figures from employment organizations and employers.

Figures from the Central Services Unit show that the pattern of first destination polytechnic graduate employment in 1979 was very similar to that for the previous year. The percentage of graduates from polytechnics going directly into permanent UK employment was 54.5 per cent, compared with 55.1 in 1978 and 2.3 per cent were believed unemployed at the end of last year compared with 7.1 per cent in the previous year.

Almost two thirds of education graduates got permanent employment and over nine tenths of these went into education—1,300 compared with 991 in 1978.

The more recent picture is equally hopeful for all graduates, according to Mr Tony Raban of Graduate Careers Advisory Service. "The graduate employment market is holding up much better than we feared. The situation seems to be better for graduates than those without degrees. We have no measure of next year's market at the moment but recruitment is less gloomy generally for graduates than for others", he said.

One reason is that employers are looking at their long-term recruitment needs rather than their immediate position, says Mr Raban. "They have learnt a lesson from the early 1970s when they failed to recruit and then found themselves in the mid-1970s with no young people with five or 10 years' experience in the company."

The point is also made by David Jowett, chairman of the Standing Conference of Employers of Graduates in the new edition of the *Graduate Opportunities* directory.

"Graduate recruitment does not necessarily reflect the current state of the economy", he says. "Many companies are looking much further ahead than next year when they recruit graduates; they want to recruit the next generation of top managers".

The publishers of *Graduate Opportunities* claim that proof of a reasonable recruitment picture is contained in the unusually high number of companies, 650, advertising in the new edition of the directory although there may be other reasons for this.

Business studies boom caused by school-leaver unemployment

Rising unemployment has led to a substantial increase in the number of school leavers taking full-time general business courses according to a Business Education Council report this week.

"The increase from 35 per cent to 47 per cent would seem to indicate that many school leavers have seen the value of taking BEC general courses", it says.

Some 78 per cent or 10,797 students gained a general award this summer, and 18 per cent of those are eligible to progress to a national award.

Mrs Diane Garrard, the council's assistant chief officer, said: "These show that our examiners have achieved the right standards for both pass and credit levels and that teachers have again succeeded in motivating students. If anything, our examiners and teaching staff were more rigorous and objective in their assessment of students this year than last year."

Now BEC has initiated a drive to increase the study of modern languages through full-time "sandwich courses. All centres offering BEC national and higher awards have been asked to review the structure of their courses to offer options in French, German, Italian, Spanish and Russian, where possible.

In its latest circular on modern languages BEC says: "We are concerned to raise the overall standard of oral and aural competence in modern languages for those employed in British business, commerce and public administration."

The council points out that it does not expect a BEC award which includes language modules to produce linguists at the level of interpreters or technical translators.

"Courses should aim to equip the students with the skills and knowledge appropriate to modern business and administration, that is sufficient oral aural and written competence to deal efficiently with their overseas counterparts", the council says.

Therefore the council is expecting proposals for language study to be set firmly within the context of vocational education for business and be planned integrally with other parts of the courses, so as to enable the student to carry out typical business activities involving the use of foreign languages in industry, commerce or public administration.

Students on national awards courses will be limited to the study of one foreign language so as not to restrict option modules in other essential employment related areas. Higher national awards students will, however, be able to study two foreign languages, provided that this is consonant with the vocational aims of their course as a whole.

Principal makes bid to save college

by Charlotte Barry

The principal of a short-term residential college which was due to close this month is making a last-ditch personal attempt to save it.

Mr John Seal, principal of Ruislip College (formerly Battle of Britain House) in Middlesex, has offered to take it over as a private, non-profitmaking enterprise.

Earlier this year the outer London borough of Hillingdon, which has been running the college at an annual cost of £50,000, decided to close it as part of its programme of spending cuts.

Rather than be redeployed within the education service Mr Seal has offered to run the college privately and pay the council an agreed annual rent for the building in Northwood. The council's decision is expected next week.

Up until the beginning of this month the college catered for about 1,800 people a year on courses ranging from one day to two weeks in length. Over the past seven years Mr Seal has expanded the traditional liberal studies programme to include industrial relations and pre-retirement courses.

In the absence of a local authority grant Mr Seal will be forced to run more income-generating courses for trade unions, commerce and industry. He also hopes to extend into the catering business and provide for weddings, dinners and business lunches.

"I would like it to continue in the liberal adult education tradition", he said. "I don't want to make money. I just want to keep it going and would hope [illegible] make a living out of it. I have offered to do it at no cost to the council for the 12 years until I retire."

Mr Seal also intends to revert to the college's former name of Battle of Britain House, which was founded in 1946 as a memorial to the role played by the RAF during the war.

"The idea of traditional values and patriotism appeals to me and it seems a terrible shame to see the college like this go when it is the only one for miles around", he added.

Ruislip College is one of five out of the original 30 short-term and residential colleges which were among this year's victims of local authority spending cuts. A further two in Staffordshire are also under threat.



This troupe of disabled actors, the Graeae Theatre Company, has just returned from a highly successful tour of North America.

Led by director and playwright Richard Tomlinson, adviser for handicapped students at the Open University, it has just embarked on a further tour of south England and Wales.

Richard Tomlinson's play Sideshow is intended to shock and disarm its audiences. Its aim is to create a drama which bypasses the normal uncritical reaction of audiences to disabled performers and which will be judged instead by ordinary theatrical standards.

Pictured (l to r) are Middlesex Polytechnic student Elaine Roberts, machine operator Phil Pish and freelance writer Alec Low. In wheelchairs are Surrey University graduate Nabil Shaban, Open University student Martin Saunders and Will Keppen.

London lecturers hope for deal

The schoolteachers' agreement on new London allowances is certain to be reflected soon in an identical deal for polytechnic and college lecturers.

With the Burnham further education committee meeting yet fixed, a date for an agreement covering lecturers in the public sector was uncertain. But the increases, ranging from 20.5 per cent in the fringe areas around the capital to 24.5 per cent in inner London, will be backdated to April this year.

The inner London area covers the whole of the ILEA and the boroughs of Barking, Brent, Ealing, Haringey, Merton and Newham; the outer area is Greater London excluding the above; and the fringe area comprises Surrey and parts of Berkshire, Buckinghamshire, Essex, Hertfordshire, Kent, and West Sussex.

How television can teach new skills

The fourth television channel could play an important role in educating and retraining people in new skills and expertise, Mr Jeremy Shaw, director of television by the Independent Broadcasting Authority, said last week.

Speaking on Television in the 1980s at the Manse, Cafe Royal Conference, Mr Shaw said that broadcasters would not act alone on their own, but in partnership with experts, such as those aware of individual student needs.

To serve these particular needs, he foresee that the [illegible] of television in the 1980s will be the evolution of a variety of partnerships for educational ends, said Mr Shaw.

The Open University has provided a valuable lesson in broadcasting including some of the other educational needs that it has particularly proved expression in the circumstances in Britain in the 1980s, he said.

"I do not underrate the difficulties of marshalling the resources will for such a purpose. The English in particular have always appeared sceptical of the values of education. But at last there is needed [illegible] decade is not to confirm the downward path of a Britain whose ever more helplessly and rivals of its neighbours and rivals in Europe", he said.

"Of the possibility of a new medium of television service which might specifically serve education, Mr Shaw said that this would be for resources unlikely to be at the command of Government in foreseeable future.

Student grant service appeals for funds

The Educational Grants Advisory Service, EGAS, which deals with more than 80 inquiries a week from students in search of financial support to finish courses, is now itself appealing for funds.

The service was set up by a group of charities in 1962 to help students in negotiations with local education authorities, research councils and other funding agencies, and to help students who have run out of money.

Examples of their work include help given to a West African woman student whose father was made redundant suddenly, and to a science student who needed support to resit his exams before getting a place on a university honours course.

The service, sponsored by the Family Welfare Association, this week sent a letter of appeal to universities, polytechnics and colleges, asking for a £50 annual subscription to continue its work.

The service is hoping to raise £15,000 to £20,000 per annum.

Paisley joins teaching company scheme

by Olga Wojtas
Scottish Correspondent

Paisley College of Technology has become the first Scottish non-university college to take part in the Government's teaching company scheme which encourages collaboration between industry and the academic world.

The scheme, now in its fifth year, financed by the Department of Industry and the Science Research Council, puts graduates to careers in the manufacturing industry and give higher educational institutions experience of practical and industrial problems in manufacturing.

Six months ago a number of teaching company associateships, engineers working full time in partnered companies to maintain close contact with their higher education institutions through course and tutorial work.

Paisley's partner is Barcon Ltd of Edinburgh, one of the world's largest manufacturers of surgical sutures and ligatures, which has welcomed the venture which also aims at improving the partnered company's manufacturing methods.

Dr Colin Osborne, associate head of Paisley's department of mechanical and production engineering, said: "It is widely believed that this type of close cooperation will have far-reaching benefits for both partners and will provide a better understanding of the problems which face manufacturing industry in this country."

Leverhulme Trust aids medical research plan

Research at Strathclyde University to help medical and programmes in developing countries has been bolstered by a £42,000 award from the Leverhulme Trust.

The centre for Industrial Innovation will concentrate its research on portable fee-makers, for home burners, for medical refrigerators and surgical sterilisers, all designed for medical teams working in remote areas.

The team's design sketches will be discussed this month at the International Federation of Surgical Colleges in Geneva.

The centre has already built some portable ice-makers which can run on kerosene, bruckwood or even dried animal dung and water, and will be used for the storage and transport of vaccine for immunisation programmes in the Third World.

Several countries and international agencies including Unicef and Oxfam have expressed keen interest in the ice-maker, and French veterinary scientists have said it will also be valuable for veterinary medicine in the Third World.

Mr Ted North, the centre's director, said: "The award from the Leverhulme Trust will allow us to make improvements in the design and performance of the ice-maker. We hope it will then be manufactured commercially at a cost of £200 to £300 a unit."

The team also hope the medical refrigerator will be commercially produced. It is intended for use in areas where gas and electricity are unavailable.

Yorks leads way with new policy body

by David Jobbins

A streamlined replacement for Yorkshire and Humberside's regional advisory council could become the model for other regions seeking greater economy and increased concentration on major issues.

The new Yorkshire and Humberside Association for Further and Higher Education is to be established in September, 1981, and will take over full responsibility from the 52-year-old regional council a year later.

The initiative for the change has come from the Yorkshire and Humberside Association of Education Authorities and the decision to go ahead—evidently free from any party-political considerations—came after a working party had examined regional needs.

A significant difference between the old and new bodies is the specific reference to higher education. The new organization will also for the first time be playing an important role in policy decisions on initial and in-service teacher training.

It will continue the old regional council's task of acting as a forum for the 11 education authorities to consult with institutions and other bodies in the region, and to advise central government on coordination and provision of higher education.

It will also involve industry, commerce, the unions, universities and others in its discussions, and help with curriculum and staff development.

A feeling to emerge from the critical examination of the old council was that any replacement should concentrate on major issues, and that there had been a tendency for less wide-ranging issues which could perhaps best be dealt with at individual authority level.

One of the local authority officials most closely involved, Mr Michael Neale, said the new body's role would be to bring education authorities together to discuss major new initiatives. Adult literacy would have been one example, and one likely to emerge was the whole question of 16-to-19s.

Scottish authorities 'dodging responsibility for adults'

Some Scottish local authorities are deviating from their statutory responsibility to provide adequate educational opportunities for adults, resulting in an increasingly uneven pattern of continuing education in Scottish universities.

This is one of the conclusions of a working group for the Universities Council for Adult Education (Scotland).

All the universities have collaborated closely with local authorities in the past, says the group's report, with authorities subsidising many of the teaching costs.

"Some authorities, though still giving grants in aid of administration, insist that classes arranged with their assistance must operate on a self-financing basis. One or two authorities have withdrawn all forms of financial support", it says, recommending that the report goes to the Convention of Scottish Local Authorities, while reaffirming its desire to contribute to joint programmes.

However, the working group is very concerned by the inadequacy and unreliability of the data available on continuing education.

Principals of Scottish universities and the Universities Grants Committee, at present collecting information on continuing education, must be made aware of these shortcomings.

"If the CER is to be taken seriously for any planning or funding purpose, the procedures for compiling returns within universities must be tightened up, instruction clarified, interpretations standardized", it says.

Apart from Strathclyde, where a director of continuing education has general oversight of the entire programme, no university seems to have a coordinated policy for organizing and marketing continuing education projects, says the report.

There is much scope for further development and experiment in most university departments, with part-time graduating courses, university certificates in subjects such as archaeology and local history, and courses designed in consultation with outside professional groups", says the report.

The report praises the work being done by extra-mural study, adult and continuing education departments and recommends that they play a focal role in future developments.

Health teaching course opens

A major programme to train teachers in devising and coordinating health education programmes begins at Southampton University this month.

This follows an agreement between the Schools Council and the Health Education Council to jointly fund the £250,000 programme. It is to be carried out by the Schools Council health education project which has been extended for a further three years.

The project team's purpose is to train teachers who will coordinate the planning and initiation of health education programmes in their own schools. Twenty-five local education authorities have agreed to participate in the coming school year.

The content of the programmes and teaching methods are the responsibility of the teachers but are likely to include issues which the project team regards as part of health education, such as self concept and sexual development, smoking, drugs and alcohol, nutrition, and food and personal hygiene.

The Schools Council team points out that the coordinators will not be working in isolation, but will pass on their training to colleagues. The team is producing a manual for coordinators which will highlight the issues and ask which schools need to consider before they can implement a programme of health education.

North Staffordshire poly plans site closure

North Staffordshire Polytechnic is planning to close one of its three sites as part of a long-term strategy aimed at saving £1.6m over the next three years.

The academic board of the polytechnic has discussed a series of proposals through the summer, including seeking voluntary and early retirements, pruning development estimates and the closure of one site as ways of cutting costs.

The discussions come after a decision by the local education authority to cut £1m from its next year's budget this year, and to ten per cent saving in the polytechnic's budget the year after.

The polytechnic's main site at Stoke, which caters for the remaining students, is not under threat. A final recommendation is expected by the end of October. The academic board will also press for voluntary redundancies and early retirement as a way of providing immediate savings, and for the retraining of some of the 425 staff, particularly into the expanding computer department.

Madeley, which merged with the polytechnic in 1978 under the government's rationalization of teacher education, can cater for up to 400 students on teacher training courses. But the site, about eight miles from Stoke, has capacity for twice as many students.

The main site of the polytechnic, Stoke, which caters for the remaining students, is not under threat. A final recommendation is expected by the end of October. The academic board will also press for voluntary redundancies and early retirement as a way of providing immediate savings, and for the retraining of some of the 425 staff, particularly into the expanding computer department.

All courses currently on offer at the polytechnic will continue as planned. The proposals are aimed at maintaining the full range and standard of academic work at North Staffordshire.

Paid leave 'no panacea' for women



Naomi McIntosh: women lose out.

The campaign for paid educational leave being conducted by trade unions will encourage men but will not help women at all, Professor Naomi McIntosh of the Open University told a conference on women and adult education organized by the European Bureau for Adult Education at Wansfell College in Essex this week.

Speaking to an audience of 60 from all over Western Europe, she said that the paid educational leave which is being promoted by unions will only help people in employment and predominantly men in large companies.

"Politicians and trade unionists are arguing that paid educational leave is the most important educational improvement for adults that can be made," she said. "But these changes won't help women at all. These political actions and initiatives are not being taken by women and are being taken by people without the interests of women at heart."

Professor McIntosh pointed out that although an equal number of boys and girls take O levels only three-quarters the number of girls as boys take A levels. Although a large proportion of girls with A levels go on to higher education two-thirds of these take courses which limit their future potential.

Women seeking education are faced with barriers to access that are financial, geographical, educational and psychological, sociological or cultural, Professor McIntosh said.

"But if we make provision that overcomes these then large numbers of women apply to study who have never studied before," she said.

Although adult education is dominated by women students they tend to choose classes in the evening and at adult education centres. They also choose a very limited range of subjects.

"The courses that men go on are related more to industrial situations, work and jobs", Professor McIntosh said. She emphasized the importance of special courses for women re-entering education which can boost their confidence and morale. But she warned against the danger of singling out women as a separate group.

"I believe that we can produce a single framework for continuing education which is flexible, geographically available and with financial support", she said.

Bedford College opposes rationalization plan

by John O'Leary

Another college has joined the growing opposition to rationalisation of courses within the University of London. Bedford College, in its submission to the review committee chaired by Sir Peter Swinnerton-Dyer, vice-chancellor of Cambridge University, warns that the merging of departments from different schools would not necessarily bring substantial savings.

"Larger departments (student/staff ratios being equal) are probably more cost-effective only in terms of expensive research equipment", the college argues. "There is no evidence to suggest that students with a preference to study in small departments would apply to large departments in London in the absence of small departments. Applications overall to the university might well fall."

Because of the heavy capital investment in established science departments, their amalgamation would be especially costly, Bedford's submission points out.

Rather than going ahead with rationalization proposals, the college advocates the expansion of staff/student ratios, thus increasing revenue and reducing per capita costs. Existing collaborative links within the university should be fostered to develop further complementary teaching and the sharing of equipment.

The submission also expresses the hope that the university will take no action on the pending application of Goldsmiths' College to become a multifaculty school for the moment. It wants the future pattern of subjects common with Goldsmiths' to be settled in the existing schools first.

Bedford believes that the university has less to fear from falling numbers than is now forecast and that recruitment need not decline at all even if the national university population falls. The college urges the committee to recommend the continuation of its academic policy within the existing federal structure of the university.

Rent withdrawal angers NUS

The National Union of Students has attacked a Government decision to abolish a £2-a-week rent retainer which eligible students can claim from the supplementary benefits commission while living at home during the two short vacations.

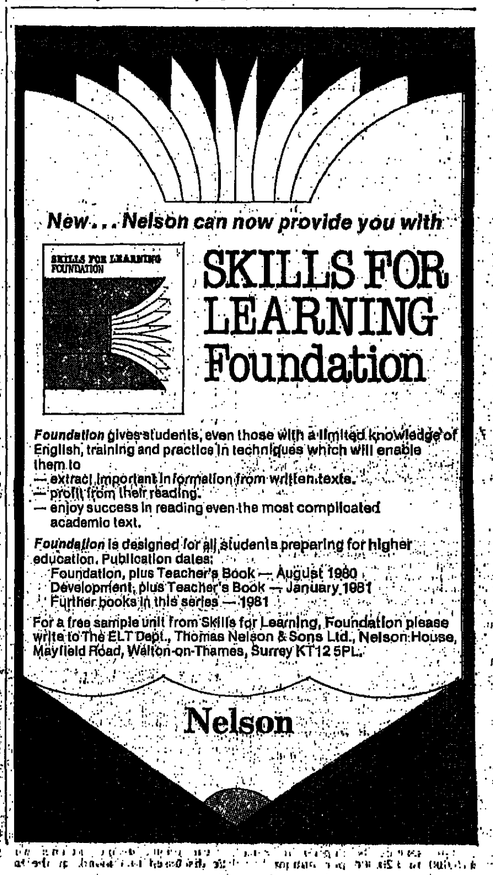
The NUS is particularly angry because the decision was made only after the union appealed to the Government to increase the level of the rent retainer, which has stood at £2 since 1973.

Mr Leighton Andrews, NUS vice-president welfare, said the union had been completely mislead. Instead of increasing the retainer from what is acknowledged as an "unrealistically low" amount, the Department of Health and Social Security had abolished it.

In a letter to Mrs Lynda Chalker, under-secretary of state at the DHSS, Mr Andrews writes: "It appears that we have been pressured with a fait accompli, without any real attempt at consultation on your proposal."

The government decision, which comes into effect at the start of the Christmas vacation, is aimed at handing full responsibility for student maintenance to l.e.a.s.

Students who would otherwise suffer undue hardship can claim discretionary allowances under the award regulations. But few local authorities feel able to make these awards.



North American News

Giant libraries face tension

The combination of soaring costs and new technology has produced new tensions for the giant libraries that are the academic core of the United States's major research universities.

On the positive side, students and scholars of the future will have access to computerized catalogues, sophisticated loan systems and instant printouts of esoteric technical articles—sometimes without ever having to leave their dormitories or offices.

On the other hand, with library costs rising as fast as those for energy, major research libraries are being forced to abandon their traditional commitment to assure the ready availability of information in any field whenever a scholar needs it.

"We can no longer continue to operate as we have," said Patricia Battin, the librarian at Columbia University. "Instead of acquiring everything in a field so that it will be there in case some scholar ever needs it, we are moving into a situation where the goal is to get it within a short period of time."

The scholarly consequences of the changes under way are no doubt as extensive as they are unpredictable. New electronic systems, for example, will eliminate the possibility for browsing in the traditional sense, and decisions to store scholarly journals electronically rather than on dusty shelves will create new problems of "refereeing", the selection of articles.

"We may face the scholarly equivalent of junk mail", said Edward E. Shaw, an associate provost at Stanford University who is president of a new alliance of 22 major research universities known as the Research Libraries Group.

The squeeze that the country's major research libraries find themselves in is exemplified by the situation at Columbia University, which spent $10m last year to operate Butler Library and the 25 other libraries in the university system.

On the one hand, the amount of scholarly information continues to grow at a "geometric rate." It took us 175 years to collect our first million volumes and only nine lean ones to go from four to five million", said Mrs Battin.

On the other hand, the costs of running a highly labour-intensive operation are outpacing the general rate of inflation. During the past decade the acquisition budget has more than doubled—from $1m to $2.6m—but the purchasing power has been reduced by $500,000.

"Half of our purchases are made abroad, so we've really gotten clobbered by the decline of the dollar", said Mrs Battin. Other major problems are the cost of storage space and increased usage, as professors find themselves less and less able to maintain large private libraries of their own.

Because of such problems, six years ago Columbia joined with Harvard University, Yale University and the New York Public Library to form the Research Library Group in an attempt to address the problems cooperatively. Harvard subsequently dropped out, reportedly to concentrate on reorganizing its own internal library network, and was replaced by Stanford University. Eighteen other libraries have now joined, including New York University, Rutgers University and the Berkeley and Davis units of the University of California.

The obvious first step in saving costs is to automate existing time-consuming functions, such as card cataloging. By the end of next year Columbia plans to switch from cards to a microfiche catalogue, and by 1985 it expects to have a computerized system that will notify not only its own resources but those of the other libraries in the Research Library Group.

"We expect to have a system whereby a student or a scholar, perhaps working from a terminal in a dorm or a departmental office, can electronically set in motion an interlibrary loan," said Mrs Battin. The requested book would then be shipped to the scholar.

The next logical step, which will be taken over the next few months once a survey of the holdings of the 22 libraries in the Research Library Group is completed, is for libraries to specialize in certain areas.

Not long ago, the New York Public Library, forced to cut back on some of its acquisitions, decided to stop trying to be totally comprehensive in the field of 19th-century Japanese scientific journals. By coincidence, the Research Library Group had just discovered that the library had the only such collection in the country, and the decision was reversed.

A similar situation exists with subscriptions to scholarly journals, an area in which Columbia has cut back from 60,000 to 57,000 in recent years.

No one knows what the scholarly consequences of such changes will be. If a university's library becomes the principal resource in a field such as medieval French, for example, will scholars in that area gravitate to that university, or will more sophisticated loan procedures and electronic storage systems make a scholar's geographical location irrevelant?

Mr Shaw noted that computerized card catalogues will increase the potential for browsing by allowing scholars to peruse the holdings of more than one library, but he acknowledged that there are possible negative consequences, especially for interdisciplinary work.

"Libraries are organized by fields, and no one really knows how important it is for the scholar to be able to look at a footnote and then stroll over to another book in another section", he said.

Although the economic problems remain, the technology already exists for radical new systems of scholary publication. These might, for example, make it possible for almost anyone to write an article and put it in some storage bank in the hope that someone might want it printed out.

Mrs Battin acknowledged that this will pose new kinds of problems for libraries in deciding what information is important but added that the questions at this point are almost as fuzzy as the answers.

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Geoff Maslen reports from Adelaide on the Australian lecturers' annual conference

Academics approve new university

Australian university staff have voted in favour of the establishment of a university in the Northern Territory. At the annual general meeting of the Federation of Australian University Staff Associations in Adelaide last week, delegates agreed to accept the new university if the federal government made extra money available and existing funds for universities were not effected.

The meeting called for special assistance programmes to be set up to help Northern Territory Aborigines enrol at the Darwin University. Delegates recommended that the university charter should require the provision of programmes of "positive discrimination" for Northern Territory blacks. The delegates agreed that in setting up the new university, help should be sought from the universities of Papua New Guinea, South Pacific, and Alaska to design courses for Aborigines wanting to enrol.

The chief minister of the Northern Territory, Mr Paul Everingham, has said the university will open in March, 1982, although the federal government has yet to decide whether it will provide the necessary finance.

A planning Bill to establish the university was tabled in the Northern Territory Parliament last week.

While delegates at the FAUSA meeting gave the thumbs-up sign for a University in Darwin, they reaffirmed their opposition to a defence forces university.

Last year the federal government proposed setting up a tri-services university to provide joint tertiary education for defence services officers. The Government abandoned the idea when FAUSA said it would ban academic positions at the university. Now the Government has proposed setting up a defence forces "academy" as a college of the University of New South Wales. Delegates at the Adelaide meeting were warned that this was merely an interim measure which would eventually lead to the establishment of the proposed institution as an autonomous university. They voted to oppose any such plan.

The feeling among academics that the federal government had placed universities under financial siege came through in many of the debates at the FAUSA meeting. They bitterly attacked the government for cutting back on funds for universities. Their sense of aggrievement was not eased when the government brought down its annual budget during the conference.

Although the budget promised a 10 per cent increase in tertiary student allowances, the money allocated to universities will fall. The 1981 provision for capital and equipment funding will drop by 18 per cent in real terms. Recurrent expenditure will remain the same as in 1979 and 1980.

But it is in the grants to research that the government's priorities are revealed. The government promised substantial increases for applied research projects but none for basic research. This was described by the president of FAUSA, Dr Peter Darvall, as disgraceful.

The Government increased funds to medical research by 30 per cent up to A$38m a year—but it refused to increase the present A$13m spent on basic research. The Government also made a massive 55 per cent decrease—to A$53m—for industrial research and development projects.

"The decision not to increase the grant to basic research is a joke blow and is seriously reducing Australia's capacity to adapt to future changes in science and technology," said Dr Darvall.

Delegates also resolved to submit a claim for an across-the-board, 15 per cent salary increase. The claim is to go to the academic salaries tribunal for consideration.

Pension scheme to be improved

Plans for a national superannuation scheme for Australia's 12,500 university academics were approved at the FAUSA annual meeting. Under the scheme, academics would be able to carry their entitlements from one university to another when they changed jobs.

At present, most of Australia's 19 universities run individual superannuation schemes and most of these operate insurance endowment policies similar to those in British universities. The value of the payments from these for academics reaching retirement is fallen by 300 per cent over the past 30 years. And if an academic transfers to another university he loses his entitlement to superannuation.

The FAUSA plan, which would involve about A$100m in funds has been accepted in principle by university vice-chancellors but has to be approved by individual university councils. Superannuation payments would amount to 21 per cent of an academic's salary, with the university paying two thirds of this amount. Universities presently contribute 10 per cent and academics 5 per cent to the endowment policy schemes.

In a related motion the delegates also voted for a national long service leave scheme which would enable academics to maintain their entitlement to long service leave if they shifted from one university to another.

As with superannuation, academics are unable to take their long service entitlements with them if they change jobs. Under present arrangements an academic is entitled to three months leave after 10 years' service with the one university. He or she loses that entitlement on transfer.

The long service leave plan has also to be approved by individual university administrations.

The search for alternatives to tenure

No issue stirs more passion among professors than the matter of tenure, the system of job security that virtually guarantees civil life time employment of a college teacher. The City University of New York is the latest scene of a continuing controversy nationwide over tenure, and chances are that similar challenges will arise elsewhere in the financially perilous decade that has begun for higher eduction.

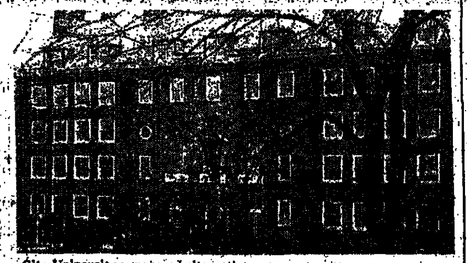
A planning document, "The City University of New York for the Next Decade", has questioned whether the institution might be better served by creating a new category of positions that would not lead to tenure, presumably allowing the dismissal of appointees more easily if they were no longer needed.

Administrative officials at many colleges and universities have been quietly yearning for the adoption of similar alternatives to tenure, but the issue is so sensitive that they are proceeding gingerly.

The problem is that the protections against tenure is impressive to academic freedom, maintaining that any change in the system would remove the protection to teach and pursue research free of outside pressures. Tenure is not granted in haste but usually after a probationary period of about six years; those who do not win tenure must ordinarily seek other jobs.

Yet the awarding of tenure has left certain academic departments in some institutions with so many professors in lifetime jobs that the schools say they cannot afford to add new blood. Furthermore, institutions report that some tenure professors are in fields of failing enrolment like history and foreign languages, in which the number of college registrations does not financially justify the size of the departments.

In addition, there is the long-standing concern about incompetence among some who have tenure, a problem that is exacerbated at a time when departments are not expanding and those teachers who cannot pull their own weight become a still greater liability.



City University: proposed alternative

While tenure is almost certainly not going to disappear, some colleges and universities would like to experiment with ideas such as the one proposed at City University. It would mean an alternative system of employment, operating in tandem with tenure, so that at least a portion of the new faculty could be retained after the money for their contracts had run out.

Nesbit Beatty, president of Aquinas College, a 1,400-student institution in Grand Rapids, Michigan, will end its first five faculty members who will know from the outset that they will not be eligible for tenure. They will be working under three-year contracts that can be renewed indefinitely. Tenure will continue for those who already have it, and appointments will be available for some appointees that could lead to tenure.

Stanford University in Palo Alto, California, already has an alternative to tenure that is in effect for a small number of full-time faculty members. They are designated adjunct professors and are given six-year renewable contracts instead of tenure.

One of the most widely known examples of the contract system in higher education exists at Hampshire College in Northampton, Massachusetts, a school that from the time of its creation 10 years ago has relied exclusively on renewable contracts, giving tenure to no one.

"We have found that we continue to attract first-rate faculty members", said Adele S. Simmons, Hampshire's president, addressing the criticism that able professors would not want to work at an institution without tenure.

Hampshire is about to revamp the system so that in the future professors who have served satisfactorily through two three-year contracts can be awarded 10-year contracts, leaving the college from the standpoint of academic freedom and contract evaluations as often as every five years. Similarly, Hampshire's contract system, sponsored by the Ford Foundation, will be completed by this autumn, and the favourable findings expected could embolden other schools to put some new faculty members on renewable contracts rather than tenure.

Such a step would probably be viewed in the academic world as a mixed blessing. It could ease the pressure on young professors, many of whom now rush from one short-term appointment to another because schools are unwilling to incur the long-term expense of giving them tenure. But it could also weaken job security and leave more professors vulnerable to abuses of academic freedom.

This is a time, after all, when the same fiscal pressures that prompt administrators to search for alternatives to tenure make professors feel that much more needs to be protected.

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Overseas student quotas opposed

Academics voted to oppose the introduction of quotas on the enrolment of foreign students into Australian universities. Delegates to the FAUSA conference were told that several universities imposed limits on the numbers of alien students who could enrol. Melbourne University has set a general quota of 10 per cent of total enrolments for foreign students wishing to study there.

The council and academic board at Monash University have agreed in principle to the introduction of quotas. The dean of science, Professor J. M. Swan proposed placing an upper limit on the number of foreign nationals admitted to the faculty in any year. The proportion of overseas students entering the faculty in 1980 was 18 per cent of 350 students. Professor Swan proposed cutting this back to 5 per cent or 40 students in future years. But staff in the faculty voted by two votes against the proposal.

Delegates at the meeting said the proposals for quotas were really being directed at Asian students.

Exchange ban 'a blow to freedom'

University staff have voted to oppose attempts by the Columbian Government to freeze academic exchanges with universities in the Soviet Union.

Delegates agreed that previous attempts represented a violation of the principles of academic freedom and of the autonomy of Australian universities".

The issue first arose last January when the federal minister for education requested vice-chancellors not to support academic exchanges or visits on a direct institution-to-institution basis with the USSR—an issue sponsored by the Government.

The Australian government has been bitterly critical of the Soviet Union following the invasion of Afghanistan and has made every attempt short of stopping trade to prevent sporting and academic contacts.

Through FAUSA, university staff protested to the minister that the proposal affected academics' freedom of inquiry.

Overseas News

Dutch students face housing shortage

from Lionel Cohen

NIJMEGEN

Holland's nation-wide shortage of low-rent accommodation is creating acute problems for the country's rising number of university entrants. As the September start of the Dutch academic year approaches, local, provincial and central government authorities, as well as the universities directly concerned, are seeking temporary means of helping students to overcome this short-fall.

Dutch universities do not generally have any formal responsibility for the housing of their students. As with most aspects of their personal welfare, it is left to the students themselves, the result of which has been the rapid development of student housing co-operative unions. These housing unions, with the help of some public subsidies and loans, will negotiate with the municipal authorities for the acquisition of land and buildings, the erection of student flats, or the conversion and management of existing buildings for this purpose which are then let at cost to student union members for the duration of their study.

But the volume of government funds available for this purpose is limited, while the rate of growth of student numbers—more than 100,000 higher over the last 10 years—coupled with the excessive length of undergraduate study programmes, has combined to worsen the student housing shortage each year. This problem has been aggravated by a complex of central and local government controls over the rented sector of the housing market, while public funds earmarked for the building of houses to rent have overwhelmingly been channelled towards the construction of cooperatively owned family housing.

Individual students in the smaller university towns find the greatest difficulties. In Delft nearly 3,000 out of the university's 11,000 students were looking for accommodation some two months ago, and in Nijmegen no less than 4,000 of their 16,000 students were in the same situation; a quarter of the 6,000 Wageningen students had their names on waiting lists for rooms in a town which, according to one local councillor, has 700 fewer rooms available this year than two years earlier.

In the short-term, there is the possibility of using emergency-type local shelter-accommodation to provide some kind of roof over the head of the student during the first few crucial weeks. Those "sleep-ins" have been set up or supported by several local authorities, not only for students, but also for all temporarily homeless people, particularly during the summer months during which a bed in a large canvas tent can provide what shelter is immediately needed. For the winter months, several local councils are busy converting old factory and office-buildings into more permanent dormitory accommodation. One council, Wageningen, is building fifteen temporary barracks to cope with the present emergency.

Students in the university town of Leiden can opt for a more capitalistic solution by, not renting, but buying, a room of their choice. An organization calling itself the "Own Room Foundation" has recently been set up by Mr D. van Leenen, a 40-year-old former English teacher, now a Leiden student. It is planning to purchase houses suitable for conversion into student rooms and then to "sell" the rooms to the students concerned, who would do the conversion, borrow the cost for the duration of their study and then pocket any capital gain when the room was subsequently "re-sold". The local council has yet to approve the scheme.

A more orthodox and longer term solution is currently advanced by local authorities of twelve university towns who have asked the secretary of state for housing to provide financial incentives to house owners willing to let rooms to students. They proposed that the equivalent of the first £500 per year of rental income from such sources should henceforth be tax free, and that this should be paralleled by a sharp increase in the level of central government subsidies for the building of one person and two person flats to rent.

Mining boom benefits new graduates

from Geoff Maslen

MELBOURNE

Australia faces such a shortage of geologists, metallurgists and other earth scientists that undergraduate students are being snapped up by employers before finishing their courses.

The number of advertised metallurgy positions related to minerals extraction has expanded significantly and continuously since 1976. So much so that the demand has exceeded the supply.

According to a senior lecturer in metallurgy at the Royal Melbourne Institute of Technology, Mr Dee Stroud, there has been an increase in demand for metallurgy graduates from around 40 positions a year in the early 1970s to more than 300 last year and perhaps 400 this year. This compares with an Australian graduation rate of only about 30 to 40 mineral metallurgists in 1979 and 1980.

Mr Stroud has been researching the field for several years and he claims the shortage of graduates will seriously affect the profitability and rate of exploitation of Australian resources, simply because too few students have enrolled in earlier years in metallurgy courses.

Mr Stroud says the shortage may also lead to an unjustifiable boom in annual salaries which presently range from A$15-20,000 (£8-10,000) including benefits, for new graduates to A$22-45,000, (£11-23,000) for experienced mineral metallurgists in the remoter regions.

Already at least two Australian companies have staff needs greater, each, than the total Australian output of graduates. Mr Stroud's comments follow similar concerns expressed by a geologist at La Trobe University, Dr Peter Fleming. Dr Fleming says that if the number of vacancies in geosciences continued at anywhere near present levels, tertiary institutions would be unable to meet the demand for new graduates. The demand was due to the mining and exploration boom, Dr Fleming says. He says many vacancies were not advertised because some employers recruited directly from universities and colleges.



A geologist checks drilling samples at Mount Windapra, Western Australia.

Dr Fleming has made a study of advertised vacancies for geoscientists for the past 18 months. His evidence shows a seven fold increase in demand from an average of 20 a month at the beginning of 1979 to more than 140 at the present time. Dr Fleming says employers are considering importing earth scientists from overseas.

"Undergraduate numbers in geology courses have been depressed for years and show few signs of increasing to levels likely to be required to meet present and future demands", he says. Secondary students were turning away from basic science subjects such as chemistry, physics and mathematics, which were necessary for tertiary geology studies.

A mining spokesman agrees there is a strong demand for earth science graduates and says part of the problem lay in persuading people to move to jobs in remote areas. One solution would be to employ more women graduates and the industry generally had "no hangups" about employing women in the field. But a spokesman in the manpower forecasting section of the Federal Department of Employment says there is a danger in Australia of the "boom-bust" cycle continuing in the mining industry's demand for graduates. The four or five years required to train new geoscientists meant the boom could be over before students graduated. This had occured at least three times since the 1940s.

Tertiary institutions involved in teaching earth sciences could reduce this lead time by offering one or two year geology post-graduate courses for graduates in other science fields, the spokesman says.

Science and technology take big slice of state investment

from John Walshe

DUBLIN

State spending on science and technology in the current year will be £170m out of total expenditure of almost £3billion for the public services in the Republic.

This is estimated in the first science budget to be published by the National Board for Science and Technology. The board, a statutory body which took over two years ago from an ad hoc science council, is charged with the promotion and co-ordination of science and technology, and advising government on national policy in this area.

Education and training spending accounts for the biggest single slice of the state investment in science and technology (£58m), followed by technical services (£49m) and research and development (£30m). Transfer programmes in science and technical information and documentation each cost £14m. In terms of sectoral breakdown, agriculture and forestry accounts for £27m, beating industry £13m and natural resources £11m.

The importance of technological innovation for the growth of the economy is stressed in the board commentary accompanying the figures. Industrial innovation policies must be geared towards increasing the level of technological competence in firms, and linking the scientific and technical services to industrial development. A review of the state of research and development activities which are an important element in innovative capacity is proposed.

The board expresses concern that the success of the Industrial Development Authority's programmes in attracting high technology industries to the Republic may be limited by shortages of skilled personnel. In 1979, for example, the shortfall in the engineering occupations was estimated to be around 1,000 and a multi-annual commitment to capital investment would facilitate long-term development planning for third level education and training.

The commentary also examines various sectors of the economy and notes the need to increase scientific and technical support for a number of these.

Ireland's marine environment is generally recognized to be underutilised. Despite its potential, less than £2m will be spent on marine science and technology this year and the board feels there should be greater investment in this area. It recommends the creation of an Integrated Marine Research Institute to support development of marine based industries.

Agricultural and food exports from the Republic are currently valued at £1,120m but less than 1% is spent on research and development in the food industry. The board calls for increased research and development work as well as a strengthening of the marketing and marketing technology linkages.

Similarly it calls for greater investment in energy/science and technology and for more scientific and technical support for the expanding engineering and electronics sector. A Council for Telecommunications Research with participation by industry, the higher education sector and the telecommunications service is under discussion.

Research staff fight to save controversial national institute

from Guy Neave

PARIS

The future of France's major institute for educational research, the *Institut National de la Recherche Pedagogique*, hangs in the balance as the government reviews the role of research in assisting educational policy-making.

The battle to save the institute is going on on two fronts: between research staff and ministry officials on the one hand and research workers and the institute's governing council on the other.

Particularly ominous was the decision taken in April, to cut the research programme back drastically. Out of the 168 projects presented for approval to the Governing Council—some of which had already begun—105 were refused. More worrying for researchers is that just under half the current research is due to end by 1981 and the remainder by 1982 at the latest.

Though the new director, M Georges Septours, appointed last December as part of a massive shake-up imposed on the institute by the Ministry of Education, has denied that massive lay offs are in the pipeline, little reassurance has been given to the 120 research workers currently employed there.

Financial stringency, however, is not the real issue. Behind the accountant's axe lies the question of the independence of research and how far government financed bodies should adhere rigorously to the short term requirements of ministry officials.

In this context, the National Institute for Educational Research has long been regarded with a certain amount of suspicion by officials at the Ministry of Education. Educational research has never been wholeheartedly accepted by the Ministry and in particular that which apparently conflicts with policy making.

Over the past 10 years, efforts to muzzle the Institute have been legion. In 1970, its publication division was removed and in 1976 a separate organization for educational documentation set up by the Ministry. Two years ago, the programme of action research, set up by the Research Director, M Louis Legrand, was severely criticised. It was seen as intruding on the grounds of the political decision makers.

The challenge posed by action research to permanent officials was finally resolved last December when the abrupt removal of M Legrand from his post, a move presented in official circles as a promotion but condemned by research staff, at the institute as a move to reduce the independence of the institute yet further.

Pontifical university considered

CUERNAVACA

A pontifical university, to be erected in Mexico, is seriously being considered by the Holy See, according to Monsignor, Genaro Alamilla Arteaga, secretary of the Mexican Episcopate. Preliminary discussions are being held in Rome by Bishop Javier Lozano Barragan, president of the Mexico-based Episcopal Commission for Education and Culture.

Mgr Alamilla Arteaga revealed that a special commission has been created in Mexico City to prepare plans and programmes of study, and the cooperation of all Mexican archbishops has also been requested.

Inquiry into extremism 'hysterical'

from James Hutchinson

BONN

A report on political extremism in West Germany claims that left wing extremists are exercising much more influence in the universities than their numerical strength would suggest. The political indifference of most students has enabled activists to become well entrenched in university organizations.

According to the intelligence organization known as the office for the protection of the constitution, left-wing extremists were represented in 35 of the 39 student parliaments at universities covered by the survey, and in eight of them they held more than half of the seats. Their share of parliamentary seats overall was more than 40 per cent.

This intelligence organization registered 160 acts of violence by left wingers last year, a quarter of which were committed by students. Right wing extremism on the other hand hardly exercised any influence in the universities.

The survey has been criticized by some university teachers as hysterical. They point out that in Britain, France and Italy similar developments were viewed with much greater calm. "Experience shows", said one teacher, "that revolutionaries become realistic after passing their final examination. I've known students of dental surgery who in their third term are all for nationalizing the health services but are happy to move into well padded private practices after they qualify."

David Walker on a Californian film faculty

Graduates strike back at the movie makers' empire



The Empire Strikes Back (left) and The Godfather, two "graduate" movies.

"Boffo", cried *Variety* the other week with its inimitable enthusiasm for a highly profitable film. The subject of the newspaper's delight was the science fiction adventure film *The Empire Strikes Back*, the second in the *Star Wars* series.

It has gone "boffo" at the box office since its release, grossing $30m in the United States within five weeks, and probably as much again in the rest of the world.

When *Variety* enthuses, Hollywood listens and looks with a great deal of interest at the people responsible for the flow of dollars. The peculiar thing about the makers of *Empire* is that they are a bunch of academics; they were academically trained in the art of film in a university department.

The commercial film makers and executives of Hollywood have paid lip service to academe for many years. One of their number, Douglas Fairbanks Senior, helped in the 1920s to start the first ever academic programme in film. But although the professional film makers and hard nosed money men have occasionally applauded students' films since, they have rarely employed them. Academe to Hollywood has meant art, and art does not make money.

But during the 1970s things changed. Young Turks, who were academically trained, began taking Oscars and plaudits; Francis Coppola (*The Godfather*) had graduated from the film school of the University of California at Los Angeles; Martin Scorsese (*Taxi Driver*) is a product of New York University; George Lucas (*American Graffiti*) came from the cinema division of the University of Southern California.

A flash in the pan, some of the old Hollywood hands said. Universities can produce film directors, but what about screen writers, producers and the difficult technical jobs of sound and camera-work?

Empire has now scotched all doubts. Graduates of the cinema division of the University of Southern California not only produced the film and wrote its screenplay; they managed its sound and created its widely acclaimed special effects. University film-makers, the University of Southern California has proved with *Empire* that it can make profits and do the nuts-and-bolts jobs on which successful films depend.

The University of Southern California is a private foundation in the central district of Los Angeles, traditionally the place where the sons and daughters of that city's elite were educated. On campus, the performing arts are given much attention—along with American football and high quality scientific research. The university's cinema division is one of the best in the United States where some 1,200 film degrees a year are offered at B.A. level. Its courses are heavily over-subscribed.

British teachers of film would find much to criticize at the University of Southern California. Courses in the cinema division (which belongs to the school of performing arts) are intensely practical. The criticism, history and sociology of film, which all play a large part in British film education, take a back seat. The peculiar economics of Hollywood also get little attention.

A departmental stalwart, Professor Russell McGregor, says wryly that "production people rule the roost here". To acquire the BA degree offered in the division of cinema, most students have to pass a rigorous test of their practical skills. Many will have had to produce a film and to have served in all the various roles associated with its making from baggage-handler to cameraman. University of Southern California staff believe fervently in "hands on" teaching of camera techniques, editing and the craft of translating a story or idea into a piece of celluloid or video tape.

But a characteristic of the university is that the content of film seems less important. Just as *Empire* lacks depth, so the cinema division seems to encourage slickness of technique rather than profundity of plot or character in its students' films.

Yet the practicality of the University of Southern California's film courses conceals a puzzle. The cinema division is housed in a ramshackle set of buildings which contrast oddly with the opulence of the rest of the campus; staff find the cost of film, cameras, and processing is a constant headache despite charging the students economic fees.

Only a few miles away—15 minutes on the Los Angeles freeway—is Hollywood, the film capital of the world. Why have the moguls, the stars and the Oscar winners not spent more on the high quality film education on their doorstep; made endowments, contributed film stock and second-hand equipment?

The blunt answer is that until films such as *Halloween* and *Empire* showed that university graduates in film could make big money, Hollywood was not interested.

It was not always so. Thirsting for respectability in the late 1920s, the Academy of Motion Picture Arts and Sciences was full of plans for university courses in "photoplay".

In 1928, the academy's president was Douglas Fairbanks Senior. With the cooperation of his tennis partner, the president of the University of Southern California, Fairbanks established a credit course in the university's liberal arts department entitled Introduction to Photoplay.

The prospectus offered guest lectures by such prominent men in the film industry as Irving Thalberg, Darryl F. Zanuck, and of course Fairbanks, himself, the contemporary star of the silent screen, director and (not least) husband of Mary Pickford.

But the industry's enthusiasm seems quickly to have waned. Neither Hollywood's studio chiefs nor its trade unions favoured employing the graduates of the university's department of cinematography, many of whom went into making educational films or training shorts for the United States army. Those who made a reputation in Hollywood, such as Mr David Wolper, a graduate of 1949, did so in the new medium of television on the margins of the big studios. (Mr Wolper recently achieved Hollywood's brand of immortality as director of the television series *Roots*).

At the University of Southern California, the study of film has suffered from its lack of academic respectability. As Arthur Knight, one of the division of cinema's teachers and a cogent writer on Hollywood, noted recently in *The Hollywood Reporter*: "On the academic side, there is the deep-rooted belief that we are really a trade school, and therefore have no place on a university campus. (Although why the University of Southern California's flourishing schools of law, medicine, dentistry, engineering and business administration are not similarly regarded has yet to be suitably explained.")

He added: "On the other hand, the industry—and especially the unions—has been, to put it mildly, cool to the presence of film schools in this area, regarding them as interlopers who each year dump hundreds of young hopefuls on an already overcrowded labour market."

That the film school's reputation within the University of Southern California has recently improved is due in some measure to the dean of the school of performing arts, Dr Grant Beglarian, a musician and composer.

Dr Beglarian admits that defining film as an academic discipline is not easy. But, he argues, film is "a discipline that gets its integrity from the people who profess it, whose life it is.

"I believe that in film, as in the other performing arts, what we seek to do is inculcate an ethical notion of a student's having a responsibility towards his or her own gift.

"Having a talent is a responsibility for the individual. Our success will be measured, for each student, by how incorrigible that person has become in the sense of remaining true to his or her gift."

Dr Beglarian acknowledges that the profundity of this idea sits uneasily alongside the intellectual emptiness of such films as *Star Wars*, superbly crafted though it was. "George Lucas (maker of *Star Wars*) is a serious fellow. He knows that *Star Wars* is not profound, but looks upon that as giving him money to do other non-studio, non-commercial things.

The University of Southern California's breakthrough came in the late 1970s when such university trained directors as Francis Coppola and Martin Scorsese hit the headlines. Aided and abetted by Coppola, George Lucas made the musical film *American Graffiti*. Its success caused studios to come to him with open chequebooks. He used the money to make even more with *Star Wars*.

George Lucas's success reflected well on his alma mater. The university has had to realise, says Dr Beglarian, "that film education is now one of the most illustrious things we do here." Lucas and Coppola have fair-sized independent production companies. Mr Steven Bach at United Artists and Mr Jack Foreman of Goldwyn Studios are among USC alumni in top studio jobs.

The film business in the United States has never had much time for the recruitment methods of other major businesses—such as trawling the universities for young talent. As few as one in 10 of the University of Southern California graduates in the cinema division managed during the 1960s and 1970s to get jobs in Hollywood. Perhaps *Variety's* cries of "boffo" will help change that.

Science correspondent Robin McKie on the biotechnology lessons we have yet to learn

The examples of our foreign counterparts we should be heeding

The recent report of Sir Alfred Spinks and his committee on generating a biotechnology industry for Britain made several unflattering comparisons with our endeavours in the field and those of other countries.

In Germany the Government launched a major national programme on biotechnology to encourage industry to use biological organisms, enzymes and processes to manufacture. It even set up the GBF centre at Braunschweig-Stockheim, the only research institute in the EEC devoted entirely to biotechnology, and is expected to subsidise microbiology, biochemistry, cell biology, molecular biology, chemistry and chemical and biochemical process and processing engineering.

In France and the United States, major programmes have also been launched and even a developing country like Brazil plans to produce half its petrol requirements from methanol and ethanol made through the bacterial conversion of sugar cane and cassava products.

"By comparison with our competitors, investment is low and opportunities have been missed," the Spinks report states.

"The present structure of public and private support for research and development is not well suited to the development of a subject like biotechnology which, at the moment, straddles the divisions of responsibility both among government departments and the research councils and the arbitrarily defined fields of fundamental and applied research," it adds.

Several solutions were recommended including increasing by at least £3m a year research council funding for the discipline; the establishment of an overall joint committee [illegible] and the creation over the next five years of 30 new teaching and research posts over the next five years to set up centres of excellence in the subject.

It is a comprehensive package which, if implemented, should go a long way towards helping Britain regain lost ground. And nowhere is this gulf between ourselves and other nations more obvious than in Japan which is already the world leader in the production of amino acids, nucleotides, microbial enzymes and antibiotics by fermentation and which is now earning about £5,000m a year from the exploitation of micro-organisms.

Whereas with electronics and large-scale manufacturing, where the whole spectrum from food sciences to fermentation industries.

The fact that so many different areas of applied microbiology and biochemistry are regularly studied in parallel and under the same roof whether in a university or in an industrial company, has given the subject such a real unity that the Japanese have indeed never felt the need to introduce a special unifying designation as Europeans have done in coining the term "biotechnology".

Dr Bullock, adds:

Another major factor which benefits the course of biotechnology in Japan is the importance given to technology in general. In the best universities, the most highly esteemed faculties are those dealing with applied sciences. Their graduates are recruited not only as technical and research personnel for Japanese industry but also for their management up to the highest level, and their opposite numbers in the Civil Service.

In research departments there is keen awareness of relevance and of potential applications in selection of projects. Even when the actual content of the research is not instantly gushable from dozens of similar research programmes worldwide, the context is often provided by some clearly-appreciated possible application, which has perhaps led to the selection of a particular example out of a range of academically equivalent topics".

A further critical factor relies on the fact that most industrial researchers take their PhDs externally, during the first six or so years of employment, and the relationships with their official supervisors provide fruitful links between the universities and industry.

Britain clearly has much to learn from the Japanese approach in biotechnology (in fact already appreciated by West Germany and France) and Dr Bullock's proposals for the setting up of an arrangement to allow small groups of research leaders to make flying visits to Japan.

Dr Bullock believes this would have both direct and indirect benefits for Britain. Directly, there would be transmission both of technical matters and, more subtly of some of the Japanese enthusiasm, dedication and sense of application, he adds.

Whether the Government, through its funding of the British Council will support such a scheme remains to be seen. At present, a white paper is being considered as a response to the Spinks report and early indications are that it is doubtful if even the Department of Education and Science will be able to find the cash to act on the minimum recommendation for new academic posts in biotechnology.

Other proposals may be implemented, but the best hope, perhaps, for Dr Bullock's plans is for an external and independent funding organisation that is concerned about the state of the science in Britain. Certainly something will have to be done to help technology, like microelectronics, become a hitherto unknown factor in the new to become a hitherto unknown factor in the industrial revolutions of tomorrow.

Alice and her receding vision of a perch in the success tree

Pat Smith assesses the odds stacked against women embarking on a career in science

"When we come to science we find women are simply nowhere" wrote James Swinburne in 1902. His today some 78 years later when, despite the huge advances towards equality in the workplace, women in science are few and far between.

For in science, girls, who at primary school may be more than equal to their boy classmates, are dropping off the educational ladder to success faster than Newton's apples from the tree.

With only a small percentage of girls taking science at secondary school level and an even smaller percentage going on to university and post-graduate work it is not surprising that in a "man's world" the top jobs go to the men.

But what James Swinburne went on to say about women's lack of position at the turn of the century is the nub of today's argument for many, including Brighton Women and Science Group, which has just brought out a new book, *Alice through the Microscope, the Power of Science over Women's Lives*.

Swinburne wrote: "The feminine mind is quite unscientific. Men are curious about things, women about people."

If science says that, it is biased; and it is particularly biased against women, argued Wendy Faulkner, one of the book's editors, at a meeting at the Institute of Contemporary Arts in London.

"The vast majority of people think that science can be held above our prejudices and is a value-free pursuit of knowledge. They don't question it and therefore they don't find out the biases of science", she said.

The book, intended primarily for teachers and students, sets out to debunk many of the myths that have surrounded women and their relationship to science. Several chapters look at how science is used to perpetuate sex differences. They single out for attack those socio-biological theories about innate sexual difference popularized in the press, which make the decision of women to pursue any career, never mind a scientific one, seem unnatural.

Girls who want to be scientists are really swimming against this tide. To be feminine is to be caring, subjective and emotional; goes the myth. The ideals of rationality and logic required of scientists are male traits, therefore any woman who wants to be like that must not be a woman at all.

"I've heard it said that if a girl wants to do science she must be a lesbian because she must be more masculine", said Ms Faulkner. "These myths gain popular currency and need to be taken on politically *and* scientifically."

A growing number of women scientists are doing just that and already this year a successful conference on women and science organized at Imperial College, London, under the auspices of the British Society of Social Responsibility in Science attracted a large number of women from different fields.

But the struggle to stop sex stereotyping before it starts is an uphill one. Boys and girls are channelled into the sex roles expected of them at an early age and the older they get the more marked the differences become. Statistics from the Department of Education and Science show a small but significant improvement in the number of girls who study science-related subjects in the last 10 years.

Even though slightly more girls may be studying science, the majority still opt for the biological rather than the physical sciences and they are unlikely to pursue CSE, in the more "masculine" subjects such as technical drawing or woodwork.

At O level girls represented 39.3 per cent of total passes in maths and 22.2 per cent in physics in 1977. At A level it dropped further to 22.9 per cent (7,571) in maths and 17.9 per cent (5,748) in physics. Of those who were in further education far fewer young women entered apprenticeship schemes or enrolled on HND, HNC and ONC courses, partly because they lacked the prerequisite qualifications in scientific and technical subjects.

Early specialization in schools can be particularly damaging for girls. Science is a career-oriented subject and girls are less likely to be channelled into it for that very reason. Boys are encouraged to study for a career that will bring a job, income and status whereas for girls it is still often viewed in terms of personal fulfilment as opposed to specific training for employment.

Specialization for GCE level and beyond comes at precisely that moment when girls just out of puberty are being bombarded with one social message: "Grow up . . . stay thin . . . be pretty . . . be nice . . . be feminine . . . be heterosexual . . . be fast". Teenage magazines, pop music, television, films and advertising are all out to turn the emergent young woman into the feminine ideal. Careers are too often left out of the picture.



Choosing arts and humanities seems an easy option. The problem is that there is no turning back. If you do not have the basic knowledge, you cannot build on it.

The image of science is also off-putting to many young people. It can seem too abstract, academic, impersonal and divorced from its social context. It appears to require high intelligence. Boys are more likely to stick to it because of their confidence that they are also more likely to have more confidence in their ability.

Libby Curran in the chapter of *Alice* "Did she drop out or was she pushed?" argues that a "broad, general education in science for all pupils would both attract more girls to the subject and make science more accessible to the non-specialist". Bridging courses between school and university are another alternative to make up for the problems of bad teaching and poor facilities found in many all-girls schools.

At a higher level the number of women who are prepared to study science and technology in preference to pure science is still markedly low. On advanced further education courses only 1,527 women studied engineering and technology compared with 62,238 men while in science alone there were 7,139 women to 20,615 men in 1977.

This pattern continues in polytechnics and universities. A grand total of 275 women studied engineering and technology in polytechnics compared with 5,102 men whereas 2,517 women and 5,916 men studied science in 1977. In the universities, where women represented 36.1 per cent of undergraduates, 1,657 women and 32,086 men studied engineering and technology while in science there were 15,667 women and 36,408 men.

At postgraduate level the number of women to men diminishes still further with only 457 women to 6,396 men researching in engineering and technology compared with 2,099 women and 9,502 men studying science.

Beyond the university the pattern is repeated in the job structure. "The higher up the ladder of occupational success, the fewer women there are", says Libby Curran. "If a job has high status in terms of money, power and prestige, you can be sure it will be done by men."

A woman who has made it as a scientist may still experience difficulties in her workplace. For one thing there would not be many women around and she may feel she has to "prove herself" in what can often be a prejudiced and hostile environment. Children are another problem. Science as it is practised is a competitive, non-cooperative and time-consuming activity. Children may actually enhance a man's image in the eyes of an employer who sees them as representatives of "stability" but for a woman they can be a threat to her "dedication" to the job.

All this adds up. Although women make up 10 per cent of people with scientific and technological qualifications, less than 2 per cent of them are managers, practising research scientists and technologists. In the words of Libby Curran: "The majority end up unemployed, or teaching in schools, or doing low level jobs—working as technicians, lab assistants computer programmers, etc. . . ."

Charlotte Barry recalls the 100-year history of the University Women's Club

The Ladies Only compartment

Just under 100 years ago a small group of feminists met to discuss the possibility of setting up a club in London for the growing number of women who were forcing their way into higher education.

Their quaintly-worded purpose, resolved at that first meeting, was "to establish in London such a club as would offer facilities of intercourse for women educated at the universities".

Three years later in 1886, the University Club for Ladies opened in four cramped rooms in New Bond Street and 200 women paid the entrance fee of one guinea. These included special members admitted under rule 30 of the newly-drawn up constitution who were 'not graduates' but were 'ladies who have distinguished themselves in art, science, literature or philanthropy or who have taken a prominent part in the promotion of education".

Among this intrepid band of pioneers in the higher education of women were Sarah Emily Davies, the first mistress of Girton College, Cambridge, Elizabeth Garrett-Anderson, one of the first women to qualify as a doctor and Dorothea Beale, headmistress of Cheltenham Ladies College and founder of St Hilda's College, Oxford.

Today the portraits of these founders of the club stare solemnly down on their successors from the walls of the elegant dining room of the renamed University Women's Club, the oldest surviving women's club in London.

In 1920 this exclusive institution bought the freehold of 2 Audley Square, an imposing Victorian town mansion in the heart of Mayfair, that must not be a woman at all.



Miss Ruth Black, chairman of the club.

Now a listed building valued at £2m, it is little changed from the days when it was the home of the Whig hostess, Lady Arthur Russell.

The sober black brass-knobbed front doorway leads straight into a light, spacious hallway furnished with comfortable chintz-covered chairs. A lone, elderly lady in a hat is immersed in the *Financial Times*. Other newspapers and periodicals are scattered within easy reach.

Up the curved stairway is a well-stocked library which is a faithful copy of the one at the Travellers' Club. A small group of middle-aged women sit drinking their after-lunch coffee in low leather armchairs facing out through long windows to a glimpse of Hyde Park in the distance.

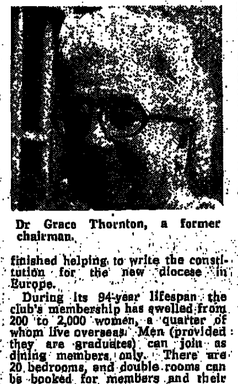
A small red-painted room (originally used for ladies) where members can study or write letters undisturbed is concealed cleverly behind a mock wall of leather-bound books. A discreet notice informs readers that Who's Who must be borrowed from the reception desk downstairs. The previous library copy was stolen.

Across the top of the staircase, past a vast gilt-framed mirror, is the large, elegant drawing room where regular lectures are given by distinguished club members and the musical evenings are held.

The club is ruled by an annually elected general committee, headed by a chairman. "Yes, *Chairman*, certainly not chairperson and not chairwoman either. I am not that kind of feminist", snorted Dr Grace Thornton, whose three-year term as chairman ended last year. One of the first British women to be given the rank of diplomat, she is a brisk no-nonsense expert in Icelandic affairs and a fellow of Newnham College, Cambridge.

The present chairman is Miss Ruth Black, a modest bespectacled woman who retired five years ago from the post of refugee organizer for the United Nations in the Middle East. Before spending 20 years dodging war zones and experiencing numerous *coups d'état* she gained degrees from the London School of Economics, the Royal College of Music, the Sorbonne and Munich University.

Although both women retired officially at least five years ago, both admit to being busier than ever. Miss Black calculates she has travelled five times round the world since retirement giving lecture tours and carrying out consultancies. Dr Thornton has just finished helping to write the constitution for the new diocese in Europe.



Dr Grace Thornton, a former chairman.

During its 94-year lifespan the club's membership has swelled from 200 to 2,000 women, a quarter of whom live overseas. Men (provided they are graduates) can join as dining members only. There are 20 bedrooms, and double rooms can be booked for members and their husbands.

Full club membership, which is still only just over £20 a year, is still restricted to women graduates, or those with equivalent qualifications such as teachers, doctors, lawyers or musicians. Associate members are admitted at the discretion of the committee.

"She has got to be someone, for example, like an artist who is earning her living, or someone who has made her name as a writer, novelist or journalist. An ordinary secretary won't do", said Miss Black. "It's no good saying, 'Oh, but she's a lady'. One member who was proposing a friend did, and I told her I thought that kind of conversation had gone out at the beginning of this century. She wasn't qualified in any way."

The club, which is actually run by the house and finance subcommittees, just manages to cover its day-to-day costs. For any capital outlay, such as the recent modernization of the service lifts, it relies on the loyalty and generosity of its membership. "All through the years the members of the club have risen to a crisis of any kind", explained Miss Black.

The oldest member is Dame Margery Corbett Ashby, aged 98, who is the only living survivor of the small group of women who stood for Parliament in 1919. One of the early Newnham students and a friend and supporter of Mrs Pankhurst, she once aided a hecklers' chorus in Bow Street as she tried to disrupt a political meeting in Westminster Hall.

Today, the particular concern of the club's general committee is the dominant number of members in their 50s and above. So it is busy canvassing for new and younger women, particularly in their 20s and 30s.

"The founder members simply wanted a place where university women could meet together because they couldn't be admitted to a man's club any more than you can today," said Miss Black.

"What we have always prided ourselves on over the years is a good welcome and civilized living. It's very good for entertaining and it's extremely good value for money. I like to keep the standard as high as I can without being stuffy. We must keep up to date," she added.



Conference chairmen Professor Gareth Williams, Sir Michael Clapham, Sir Alastair Pilkington, Sir Kenneth Berrill, and Sir Adrian Cadbury.

Leverhulme's mini-Robbin

Elaine Williams previews a major inquiry into the 1990s

Academics and industrialists team up this month for the beginning of a major private sector inquiry into the future of higher education.

The inquiry will take the form of a series of eight research-based policy seminars spread over two years. £85,000 of funds will be donated by the Leverhulme Trust.

The Society for Research into Higher Education which initiated the inquiry felt that some policy was needed to take higher education to the end of the century, since the recommendations of the Robbins report were only projected to 1981.

The seminars will be chaired by as many industrialists as academics. Their aim is to look into quality rather than quantity. The seminar groups will comprise 40 people, some who will have been invited to attend by the organising chairman. Others will apply to attend by virtue of their specialist knowledge.

A working party of the SRHE has set out some preliminary documents which stress that more emphasis should be placed on curriculum and philosophy rather than numbers and structures which had formed the basis of the Robbins report.

Management structures in higher education and resource allocation were still dependent on growth at a time when student figures were estimated to drop by one third from 941,000 to 622,000 in the 1990s. Those in employment or with family responsibilities were showing an increasing interest in continuing education in the form of part-time courses. These changes called for new policies.

The eight seminars will cover the government structure of higher education; higher education and the labour market; demand and access; research; teaching; finance; rationalisation; and institution viability; policies for the future.

Professor Gareth Williams, lecturer in educational studies at Lancaster University has been chosen as overall chairman to manage are inquiry. Chairs for individual seminars have so far been taken by Sir Michael Clapham, deputy chairman of Lloyds Bank; Sir Adrian Cadbury, chairman of Cadbury Schweppes Ltd; Sir Kenneth Berrill, former chairman of the UGC; Sir Alistair Pilkington, FRS, chairman of Pilkington Brothers Ltd.

The convenors for each seminar will be Dr Robert Lindley, head of the Manpower Research Group at Warwick University; Oliver Fulton, lecturer in educational research at Lancaster University; Alfred Morris, financial adviser to Guinness Morison International Ltd; Leslie Wagner, head of the department of economics at the Polytechnic of Central London; Michael Shattock, the academic registrar at Warwick University; Dr Donald Bligh, the director of teaching services at Exeter University. Professor Williams will be convenor of the final seminar "*Policies for the future*".

The seminars are intended to follow up the DES discussion papers *Higher Education into the 1990s* (1978) and *Further Trends in Higher Education* (1979), which demographic analysis of problems that would arise in the next two decades.

But the SRHE felt that the problem of decreasing student numbers was more than just a question of demography; it was a vote of no confidence by all concerned in higher education; by school leavers who doubted the private benefits; by politicians who doubted the social benefits; by academics who had lost a sense of their own purpose. Although this general malaise had been exacerbated by the public expenditure constraints the real reasons were much more deep-rooted.

Attitudes towards the desirability of mass higher education would have to be re-reviewed along with the use of institutional facilities. The three-fold increase in the number of students between 1960 and the mid-1970s had brought in the binary system, the creation of a large polytechnic centre.

Now we were to be faced, not only with a major decrease in student numbers, but also a change of demand in the type of higher education provided. The different needs of students of varying abilities and motivation would have to be more carefully examined to meet the structure of future society.

The working group of the SRHE defined four main areas of thinking towards higher education from four different pressure groups. First came official policy from central government which tended to concentrate on the demographic and economic constraints within which the higher education system must develop.

Secondly came the journals and editorial opinions from within the higher education system itself "suggesting more or less realistic solutions to current problems." Thirdly was the opinion of industrial and commercial employers "where most of the comment tends to be critical if uninformed", and fourthly the lecturers and professional associations from the higher education institutions.

Discussions between these four groups had been confused and unsystematic and the SRHE felt that the debate, particularly about medium and long-term developments, should be brought into sharper focus.

It is aimed that each seminar will be based on specially commissioned discussion papers reviewing research and the present state of knowledge in the policy area under discussion.

"We tried to strike a balance in the people we chose to manage the seminars" said Harriet Greenaway, academic registrar at Bristol Polytechnic, one of the members of the SRHE working party for the inquiry.

"We wanted people to be able to offer long-term recommendations unhindered by the constraints of vested interests. That is why we brought in eminent people from industry and commerce. We wanted to discuss the relevance today of teaching and research to outside needs. We wanted people who would be able to question existing assumptions that circulate within higher education." She said they were aware of the dangers of the report becoming a mouthpiece for the CBI. "We hope that this will be regarded as a major report for the future."

Professor Williams will publish a report after each seminar, to be held at regular three month intervals. It is hoped that this will keep the inquiry central to the higher education debate for the next two years.

The first seminar, higher education and the labour market is to look at the implications for the curriculum if higher education responds more closely to the needs of employers. This issue will lead to demand and access, which will assess the criteria adopted in choosing students for a higher education system, geared to a labour market. Inequalities in the admissions system will be discussed and continuing education will be scrutinised in the light of changing demands of industry and commerce.

Government and structure will study the binary and Open University system and debate their weaknesses and strengths for a future of drastically falling rolls and changing employment patterns.

The seminar on research will concentrate on the relationship between research, scholarship and consultancy. Universities and polytechnics have increasingly undertaken contractual research for the public and private sector. The seminar committee aims to examine the role, and desirability of research within the higher education institution. They will also examine the competitive or complementary relationship of teaching and research among academic staff.

The working party which prepared the preliminary papers believes that considerable rationalization of the structure of higher education will take place before the end of the decade. They are concerned that any reduction in capacity, and it is taken as inevitable that this will occur, should do as little harm as possible to the essential fabric of the system. They see educational provisions as exceeding demand in the future, but they are anxious that any cut-backs should be carefully planned.

Library celebrates three steps ahead

Edinburgh University library is housed in the largest single university building in Europe, which is a forerunner in modern library design. That sort of precocity is only to be expected from an infant, which is three years older than its parent.

For while the university is beginning its third century, its flagship, centenary celebrations for the library is already coming to an end. A 400th anniversary with publications and exhibitions of its treasures.

Among the university's present two million volumes are some of the 300 books which constituted the first library—a bequest from an Edinburgh advocate to the town council which was transferred in 1584 to the newly established Town's College, later the University of Edinburgh.

Edinburgh's collection also includes a first edition of Sir Thomas More's *Utopia*, a second quarto of Shakespeare's *Titus Andronicus* of which there is only one other known copy, and a work designed to instruct North American Indians in the fundamental tenets of Christianity, eight copies of which were sent to North American universities probably in the hope of alleling exchanges. Edinburgh was also the first Scottish university to acquire a copy of Newton's *Principia*.

It was customary for students to present the library with a book on graduation and the university also boosted its collection in the mid-seventeenth century by encouraging students to make donations on matriculation as well. Students were the key people to benefit from the library, however, the principal users being teaching staff, graduates and library benefactors.



Librarian Brenda Moon and Dr John Hall (centre), with "Surfaceman", nickname for Alexander Anderson, poet and librarian, 1905-1909, in the 400th anniversary exhibition room.

The problem of giving out books was not solved until the First World War. Three assistant librarians were on active service, and one died in 1915, a member of the counter staff, increasingly harassed by the never-ending queue of students, told one of them to "set the book your self-inside." From then on, students had direct access to most parts of the library.

The first librarian, Kenneth Logie was appointed in 1635, at a salary of 400 merks (£22.10 in English money). He had to provide a fire to air the books from October to February at his own expense, and also had to dust all the volumes once a year.

The meagre salary led to frequent changes of librarian, and in 1667 the town council appointed William Henderson on the strict understanding that he stay for at least six years. He stayed for 17 and his son Robert, who succeeded him stayed for 63.

One of the best know librarians was Alexander Anderson, there from 1880 until his death in 1909. He was a self taught poet from Dumfriesshire, better known by his pseudonym of "Surfaceman" after starting work as a quarry labourer he became a surfaceman or platelayer on the Glasgow and South Western Railway. His humorous poetry, on rural Scotland and the life of a railway navvy, was immensely popular.

Now the library boasts Scotland's first woman librarian, Brenda Moon, who supervises the library service.

"The library is one of the university's greatest assets, but it would be a futile investment were it not for its readers", she says. "The seventies have taught us to make the best of what we have. May our books never be lost to readers, nor our readers lost for books."

Olga Wojtas
Scottish Correspondent

Bernard Williams looks at the relationship between the university and its artists-in-residence

A portrait of the artist as professional lodger

I was once in an illustrious American university when there was on the campus a well-known, now famous, American novelist who was the creative-writer-in-residence in the Department of English. While I was there he got up to give the last of his addresses to the assembled faculty and students. He is a very amusing speaker; he started off by saying that he had this friend who had been invited to be creative writer at an Ivy League university. He then gave an exceedingly funny account of what this relationship was like—how these grotesque professors had hired this brilliant young man because, in some muddled way, they thought they were going to be associated with creative writing; how there were people who were not fundamentally interested in writing and wished his friend would go away, and other people who were interested in writing and somehow hoped to get onto the bandwagon. A depressing opportunism had surrounded the entire thing. The faces of the English faculty tightened as one detail after another was given of this transaction; and it was soon obvious who was being described. The faculty of English left in an irate condition and he went back to New York.

The relationship of the university and the artist-in-residence, if it is other than formal and empty, is not necessarily a happy one, and I think that that brings out something which goes beyond the particular case of the creative writer: the fact that relations between the arts and universities are not necessarily happy ones. It is some of these, general, issues that I should like to raise here, rather than more immediate and practical questions about artists-in-residence—how you select them, what medium they work in, how their activities relate to the students. One way (as the story of the American writer illustrates) in which the creative writer, or other artist-in-residence can operate is as a kind of licensed nuisance and rip-off artist. That is, he is there generally to embarrass, annoy and upset some of the professors, to encourage some of the other professors to think that they are more creative, way-out and avant-garde than they probably are, and more generally to be a socially disruptive force. He may also, from his own point of view, simply be in the business of making a small transfer of resources from a better provided sector of the economy to a less well provided one, himself. And that can be useful, though it may be difficult to persuade a university to pay for it in hard times.

But that consideration, just in itself, does not do enough to distinguish the artist-in-residence from any other interesting and energetic bundle who might find his way into a university; nor does it say enough about what a university, in the relevant respects, is. The university is, relevantly, a number of other things besides a teaching place. It is a research centre. It is a collection of young people (they used to say about the University of Chicago that it was the largest collection of neurotic adolescents assembled in one place since the Children's Crusade). In that respect a university has a life of its own which can create artistic activity quite apart from its role as a teaching place or something that contains a faculty. But the university also has a role as a museum. I use the term unrepentantly, for (at its best) a living thing which it is good to have—a fact which people seem prepared to admit when they use the word "museum" to stand for museum, but not when they use it for anything else.

Museums engage in conservation, and one role of university faculties must be, in *that* sense, conservative, since one of its roles is to guard history. This consideration defines one traditional problem, about the relation of such an institution to the lively exploratory artist whose work will inevitably be problematical; and also to unrespectable forms of work.

The problem is traditional at least since the nineteenth century, and at that level it has, in general terms, a solution—what one might call the *Meistersinger* solution; on the line that tradition and innovation necessarily stand in a dialectical relationship to one another. An artist who rejected all tradition would not be saying anything to anyone, and anybody who wasn't interested in innovation would be dead and like the hapless Beckmesser. When the composer enters into the relationship of the two, then works can be produced which are both of great genius and originality and also have their roots in tradition. If that happens you end up with an artist like Richard Wagner, which was Wagner's point.

That is a comprehensible relationship, and it defines a certain tension between the artist and the academy which is itself comprehensible. But it does not apply any more, or at least, it now often fails to apply, because the relations of the innovatory artist, and art in general, to tradition have got past that point and become again problematical.

There is an unparalleled degree of respect for art, and it is not only verbal. People traipse around museums to a degree they never did before. They buy posters of things they never did before, and in general everybody is keen on art. Moreover, the art on which they are keen is in many cases avant-garde art. Forms of art which were originally designed to undermine traditional art and a bourgeois respect for it are incorporated so rapidly into the content of that bourgeois respect that the notion of what is happening becomes lost, in particular on the avant-garde artist himself. This generates extreme nervousness in everybody, which must affect the relationship between the artist and the academy.

How profitable that relationship can be will now depend on a number of things. One is the degree to which either historical or technical knowledge or both is an important constitutive part of that kind of art; another is the extent to which the university thinks it proper to teach those kinds of skill. The best case, the case that is still fairly straightforward, is the case of music, and that is because both sides of this equation are very fully satisfied. Music has a very high technical component; there is a great deal to learn. It also has a strong historical consciousness. It is true that there are some composers who say that all music before Varèse is junk, or that one shouldn't listen to Beethoven, but they don't usually mean it. Composers do have a very strong historical sense. This, together with the strong technical component and the fact that it is a technique which universities are used to teaching, means that the role of the modern composer in relation to the music department can be an extremely positive one. If you have boring conservatives in the music department who are not interested in modern music, then you just have boring conservatives. But the department offers an environment in which the creative artist will have a great deal to do in explaining to people how he works, so that there is education and creation at the same time. That case seems not very difficult.

[redacted]

Contrast with this the case of the film-maker. I take it that film-making is an art which also has a very high technical component. I would have thought it also has an historical consciousness, though various film makers probably differ in the degree to which they think that that is an important element. Certainly, a lot of modern film makers, consider it important that their art has this history. Film is an art in which young people are exceedingly interested. Courses about film are often successful in attracting students even if their content is not so successful, because it is an art in which young people are spontaneously interested; everybody wants to go to the movies.

Painting is in some ways like the film case, though it differs by painting being, like composing, more an individual and less an industrial process. Universities as such have not generally gone in for teaching the techniques or the technical aspect of painting. In this case there is a slightly more problematical quality about what form of technical knowledge is essential to acquiring the art anyway. In a sense those certain traditional academic skills may not now be held so important in the formation of visual artists as they were in the nineteenth centitry.

The extreme case at the other end from music is that of literature, or writing, because in this case the role of the technical and the historical in the procedures is always totally problematical. That is, there is very large room for disagreement about whether there is any identifiable purely technical role in the formation of a creative writer, unless he is working in some very special genre or perhaps, for instance, writing for the theatre. People will also differ very widely about what its historical component now is. On the other side equally, it is not the standard business of a university to teach people to write except in the sense in which everybody who is going to express anything in writing ought to be taught to write.

However, when the Arts Council recently asked the universities what they were doing for the arts, the first thing that almost all of them included in their submission was an account of things that they did in their faculties and particularly in the department of English. It is an interesting question why they thought that that was a relevant answer. The mere occurrence of the word "arts" over the building academy must be to some degree, and the interests of the artist, particularly the experimental artist. To call a work of art "academic" is a term of abuse; but to regard the term "academic" in a university as a term of abuse is an act of treachery. Of course, the academic is not the only thing in the world, nor is the most important thing in the world, but all that means is that universities are not the most important things in the world, not that universities should not be academic.

A lot of contemporary art anyway goes beyond the traditional or *Meistersinger* problem in being deliberately forgetful of history, and forgetful of the concept of art. Except in so far as the avant-garde has in fact neutralized and commercialised itself, the relations of the academy to it can scarcely be anything but uneasy, ill-defined, and one way or another opportunistic. There is one further point, which applies above all to literature departments. Such traditional academic skills may not now be held so important in the formation of visual artists as they were in the nineteenth centitry.

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The author is provost of King's College, Cambridge.

This article is based on part of a lecture given to an Arts Council conference on "The Arts and Universities" at the Sainsbury Centre, University of East Anglia, in September 1979.

Logie Bruce Lockhart examines the strengths and weaknesses of Oxbridge admissions policy

The college, the candidate and the inadmissible evidence

Admissions officers cannot win. Whatever they do, the "Trade Union of the Failed" will find reasons to consider themselves unfairly treated. If policy is flexible, it will be accused of being corrupt; if it is rigidly based on marks it will be accused of being inflexible. examinations will be thought to be slanted in favour of some sections of the community, or the corrector will be considered to be inconsistent, unpredictable and unsympathetic.

The relationship of Oxbridge admissions to Oxbridge applicants is rather like the relationship of the elephant to the blind men in the Buddhist legend. Half a dozen blind men were introduced to an elephant and asked to describe it; one held it by the tail, another by the trunk, another by the tusk, another by the ear, another by the belly and yet another by the foot. When asked to describe the animal they failed, not surprisingly, to agree about what it was like. A comprehensive school headmaster applying for the first time to Hertford College on behalf of a PPE (politics, philosophy and economics) applicant might not recognise the system as being fundamentally the same as the one he might encounter were he to apply on behalf of a theological rugby player to Magdalene.

Yet, after 25 years of advising boys, and now girls, on Oxbridge entry, I believe that the tutors for admission are courteous, patient, helpful and fair minded. I would like to start by dispelling some myths. First, a good games player will get in as easy dicker. We all know the funny stories of Dr Y of C and Dr S of M; but I would be very surprised if any outstanding games players had got in on very low grades in the last five years. As to 'old squash and 'Rugby Blue' might be thought to have as much chance of influence as any.

Nevertheless my attempts to gain entry for Gawain Briars (then under 19 squash champion, now British number one) to Magdalene was, perhaps rightly, frustrated. The tutor for admissions was an old friend, an ex-colleague on the headmasters' conference, and a rugby blue himself; the master was a governor of my school and another ex-chairman of the conference. The boy got admittedly humble grades of BCD and applied for History. I could in all good conscience say that he was worth a little more and would have got higher grades had he not spent so much time travelling in pursuit of squash. But he was turned down and I was reluctantly impressed. It was, at least, a tribute to university objectivity.

When my own son got the same grades, I did not even enter him. Oxbridge have a balanced attitude to this problem. When you have taken all the outstanding academics, there is a substantial group of candidates in some subjects whose grades average lower B than A. There is very little to choose between them, and it seems entirely fair that, among these, colleges should take candidates who are outstanding games players, musicians, debaters or artists in preference to those who have devoted all their time to nothing but academic specialisation. Some misunderstanding arises from the fact that some headmasters expect academic standards for acceptance in theology and archaeology and anthropology to be the same as those prevailing in medicine, law and maths.

One hears that some colleges are pro public school and others pro comprehensive. In my experience all tutors bend over backwards to avoid any element of class distinction in their choice. In doubtful cases comprehensive candidates will rightly have some precedence, if their school is one in which poor teaching, small numbers of sixth formers or difficult atmosphere constitute real handicaps. Tutors have rejected, however, the suggestions made in some Oxbridge quarters that marks should actually be deducted from grammar or public school candidates to counterbalance the advantages, real or imagined. One cannot choose on political grounds.

Most candidates are admitted on grades, either at A level or in the university entrance and scholarship examinations. Reports are carefully read and all those headmasters who ring up persistently to clear up obscure matters about choice of papers or even merely to persuade authority that their cases are worth, are given polite attention.

Yet Oxbridge admissions policy is not fair, in the sense that candidates are frequently accepted who are obviously less strong, in terms of school assessment, A levels and Oxbridge examinations than others who are rejected. Why? And can anything be done about it?

The first reason is the inherent difficulty of knowing where to apply for what. A candidate for engineering is rejected by his first choice college at Cambridge, which happens to have a strong list this year. He would have got a scholarship at a particular college at Oxford, which happens to have a weak list. A prospective lawyer is turned down by Erasmus College and falls through the pool. He would have got a scholarship in History at Copper College, but was pulled down as an intending lawyer, by a bad performance in a general paper to which lawyers pay particular attention.

If the candidate's school has an old hand in charge of university applications who is greatly experienced and knows all the tutors, it must give him a better chance. Even the most experienced may lose their way in this particular jungle. The best informed tutor can tell you that X college was short of good economists last year and had to "fish in the pool", but the "rocking boat" principle makes such advice dangerous. All kinds of headmasters will have heard that X was taking economists on B grades in 1979, with the result that applications pour in. In 1980 X college may be rejecting men with AAB grades, and college Y may find itself surprisingly short of good candidates.

In theory such difficulties are put straight by colleges of second or third choice, and by the operation of the pool. In practice this is a substantial source of wrong choices.

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The college and the candidate

from page 9

At Oxford the group system is still in operation. Candidates who are thought to be up to standard, but have had to be rejected by a college of their first choice with a strong batch of candidates, are considered by the other colleges of the group, in the order in which they list them. Thereafter they go into the inter collegiate pool.

At Cambridge some improvement is indicated by the new three-college system, whereby each candidate nominates three colleges. When the first choice college rejects and pools the candidate, second and third choice colleges can express an interest in his or her file: no other college can then take them out of the pool until that interest has been relinquished. The improvement is due to the abolition of the group system, which allows fishing colleges to see who is available straight away. Known as "fishing" colleges can thus be second or third choice—*provided*—which *is* unlikely—that the *headmaster* or the candidate knows which colleges are likely to be fishing in which subjects. A further complication is that a college can on occasion pool candidates and then pull them out again.

[redacted]

The pool is, in Cambridge, a large room, where all the files of rejects who are deemed worthy of further consideration are placed. Tutors who are unhappy with their applicants come and browse among the files. Periodically fish are extracted from the pool. Last year it amounted to 16 per cent, but the figure was falsified by the large scale fishing of one or two particular colleges. Viewed from the candidates' end, it is a miserable procedure.

Award winners get a telegram long before Christmas. Most young men and women taken by colleges of first or even second choice know before Christmas. Denizens of the pool may or may not get a letter by Christmas telling them that they have been placed in the pool (which is the fault of the Post Office and not of the colleges!), but that "this does not necessarily indicate that any college will be able to offer you a place." No decision is made in many cases until mid-January, and the wretched candidates, many of whom have had their hopes raised by being told that they have been graded "A" or that they reached a satisfactory standard, have their festive season spoilt by the protracted wait. Some cancel holidays or return from abroad in case of the chance of an interview in January. Some get no January interview and emerge still rejected.

Candidly it would be kinder to inform all those in the pool: "Abandon hope all ye who enter here!" and then to suggest a few by unexpected late offers, although it may be difficult to organize mid-January interviews without prior warning.

There is no doubt in my mind that at least 10 per cent of pool candidates are better than at least 10 per cent of the first round offers of accepted candidates in some subjects it will be nearer 25 per cent. The mechanism makes this inevitable. It doesn't matter in medicine, where there is a quota system and one knows that specific candidates will get in. But in popular subjects, like law and PPE at Oxford this year, scarcely any colleges looked at the pool, although large numbers were consigned to it. Some colleges consider in January that they have fish, and look down on pool-fishing colleagues. They might be happier. The only recent pool-user ended up with Firsts.

I can see no logical way to improve matters. First, that all colleges should agree to leave not less than 10 per cent of their places open for pool candidates, or at least to declare in advance if they intend to do so (failing a specific indication of it is not possible at present to know whether a college is going to take on candidates from the pool or, as happened at one college this year, over 60 per cent one fell whether it will fish extensively in the faculties and not at all in others).

I believe schools could be persuaded that a known agreement would be more fair. Secondly, it would be kinder to tell candidates who are put into the pool that they do not stand a strong chance. Thirdly, that the whole procedure should be given a little more time. If the examinations were held four or five days earlier the desperate scramble before Christmas would be avoided; perhaps it would be possible even to clear up the pool candidates before the holidays.

Some schools ask for an even later start to enable them to do more teaching, but pressure at the university makes this neither possible nor desirable. There were one or two regrettable errors this year, such as the inclusion of the wrong candidate's marks being attached to an award holder's letter, which could have been avoided if the time pressure on correction and interview and decision had been less intense. Fourthly, that colleges should have available for schools at the time when candidates must make their decisions a short leaflet drawing attention to any features of their policy that they wish to stress. Some of them are very good about this, but not all. Fifthly, schools should give some indication of the record and standard of the teachers responsible for preparing the candidates.

Lastly many tutors make serious mistakes because they do not take age sufficiently into account and because it is so difficult to balance fourth-term applicants against seventh-term applicants. Some schools coach fourth-term candidates carefully for Oxbridge exams, others work for A levels and treat any fourth-term candidates as premature applicants who are getting exam practice. The difference between an arts candidate, especially one who reaches the sixth form at 15 and one who is promoted to the sixth form at 16 is great . . . those promoted at 16 should expect to get one or even two grades higher at A level.

Many of fourth term failure gets a seventh term scholarship. Others clearly heading for high A levels and an Oxbridge place after two years and a term get so downhearted by a fourth term rejection that all the steam goes out of them. Those of us who have seventh term groups feel that all the best University type teaching goes on at that level. Yet some cannot afford to stay on for the extra term, so that finance dictates a number of decisions.

Ultimately the complexity and occasional unfairness of admissions to Oxbridge derive, at Cambridge more than at Oxford, from the over zealous defence of college differences and, at Oxford more than at Cambridge, from the imperfect operation of the pool system. The *esoteric distinctions* between colleges are too shifting and uncertain to be reliably measured by outsiders.

Personally, I tend to be easily impressed by tutors for admission who take a lot of trouble, give honest advice and have a good track record for taking the right candidates. The students' prospectus is a very informative supplement: far more sensible and balanced than most of such documents, and well worth reading. But while a few of us cling to our prejudices and listen eagerly to gossip about the pros and cons of colleges, I believe that many Headmasters and their candidates don't give a damn about which college; they just want their best candidates to get to their favourite university to study the most appropriate subject . . . and that, apart from the admissions efforts on both sides, has not yet quite been achieved.

As admission tutor's life at the peak of the season must be hard indeed. The coward's way out is to give all candidates as many places as possible and, if you have vacancies in the university for 90 undergraduates in a particular faculty you take the top 80. Nobody is fooled into believing that it would really be such a certain way to select individuality and flexibility. But a re-examination of some of the more pointless differences between colleges' policies and another review of the pool system, of the tutors' attitude to candidates' understanding of the age and stage of their candidates, and of the date of the exams might reduce the confusion of advisers, and the agonized waiting period of the candidates, and achieve fairer results.

I know that dates of universities and schools swiftly become immovable, through a complex network of interdependent fixtures. To move the whole of the university and school terms two weeks earlier would solve part of this problem, save time and be popular with parents. Perhaps it is not absolutely impossible. If it can't be done, then it might at least prove possible to advance the date of the exams by a few days.

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M. L. Bush on period and place in the study of history

Is the past a foreign region?

It is possible for historians to identify themselves as scholars and teachers without declaring the specific subject of their study. An admission of period or locality and perhaps their field of interest is sufficient. Thus, the claim to be a medieval or modern English historian in economic, political, ecclesiastical or social history is perfectly credible. On the other hand, it would be irregular for a historian to profess: "I study the English parliament"; and quite alien for him to state that he studied representative institutions.

Both historical inquiry and the teaching of history remain lodged within the period. The hallmark of a history book or course is the terminal dates which accompany the title. The work of individual historians is also closely tied to a single location. While teaching sometimes allows a subject to be studied across a range of countries, research remains heavily dominated by the one-place approach.

Is the period's ascendant role in teaching and research justified? After all, most periods are conceptual artifacts, initially adopted by historians as a convenient device for coping with the past's massive time-span.

Yet period has ceased to be the mere instrument of the historian. Historians write books in profusion on periods. As if a conceptual period had actually happened, they seek to justify its existence, to assess its importance and to demonstrate its coherence. University syllabuses are cluttered with courses which essentially study periods: not only introductory survey courses but also special subjects which some universities term "special periods". Interdisciplinary studies have tended to uphold the traditional concentration on period; so has comparative history; and so has the belief that undergraduate studies should involve research based on original sources. Period has also become the arbiter of relevance: the happenings of the twentieth century are seen more significant than those of the sixteenth century, which are regarded as more important than those of the Middle Ages. In this way period decides what is worthy of study.

The period's domination of historical study is questionable on several counts. All long-term period divisions of the past—for example, medieval/modern or late medieval or early/late modern—are crude generalizations. Since many are Europe-based, they become a complete nonsense when applied to the history of the rest of the world. Their meaning, in fact, depends essentially on a single-minded concentration upon European affairs. Even for ordering the European past, these long-term periods are grossly inadequate. Their basic presupposition—that there are general starting and finishing points applicable to the range of European societies and states—is a self-evident absurdity. Furthermore, as a result of the very thin local history that has increased the complexity of individual states, the period becomes questionable even for partitioning societies which share the same government. Apart from these defects, the long-term period is unmanageable as a subject for historical study because of the extent of time and the range of matter involved. Tout appreciated the long period over the short period is misconceived for the

[illegible] scholars tend to retain [illegible] source for only one short period. In the area of time where they settle to do their preliminary work they frequently abide for ever after by a single period. If they elegant it is to move to another period of short duration. As a result not only are historians blinkered by their concentration upon one period of time, but their fixation upon period tends to insulate them from scholars working on related subjects in other periods. In research, the outcome is a mountain of micro-history which establishes nothing of substance because it is periodized and, only in that respect, relevant.

Period division is but one way of treating the past. The comparative history of a state or locality, the study of an individual or an event, a theory of historical development such as Marx proposed, and the study of a cultural movement, an economic trend, a political question or a social structure are all alternative approaches. The study of certain individuals or particular events allows little opportunity for the study of the long-term past, while the complete history of a state or a locality sets the historian a task which is too diffuse and general to be accomplished without a high degree of subject selection or superficiality. A theory of historical development, moreover, rests upon the same dubious base as the study of a conceptual period, its validity relying totally upon the acceptability of the central concept. On the other hand, the study of a movement, trend or structure offers special research and teaching opportunities. A study of a social group or an economic development or an aspect of a political system, in each case throughout its historical life span, could avoid many of the problems arising from the study of the past within a period, allowing, for example, the co-ordination of research done on the same subject in different periods. It could also allow a more adequate study of the long-term past. The precise nature of the subject at any one point in time could be more accurately assessed because the historian would be better equipped to know its character at earlier and later stages. Related in this way to a long-term development, research would acquire greater relevance than it now possesses in its periodic state.

This approach would allow the past to be presented not, just as a concatenation of events and set contained periods but as a development of durable but continuously changing systems, structures and attitudes. It would make effective use of the time dimension. History's special resource is a wealth of example offered by a span of centuries rather than years. While periodization closes off much of this wealth, the long-term study of specific subjects opens it up again. The same approach is of equal value in the teaching of history, possessing enough definition to provide direction and to prevent difficult superficiality, and sufficient duration to encourage a broad view of the past.

Concentration upon subject rather than period could also safeguard those parts of the past which, because of the highest intellectual quality periodization is meaningless, suffer elimination from the syllabus. In English universities, new and old, history schools have deliberately lopped from the syllabus bits of the past. Driven by a period reform has narrowed the time-span of study on the grounds that the essence of relevance is proximity to the present. Consequently, not only history before 1500 but also history before 1700 are dismissed as unnecessary and dispensable. The replacement of period by subject as the basic criterion of relevance could counter this vandalism.

Like period, place can serve as an arbiter of relevance: national history largely determines both the subject of historical scholarship and the content of university courses. Since English medieval history tends to have priority in the university syllabus over more recent developments in other countries it frequently challenges period as the measure of importance.

To some extent, the historian's preoccupation with one place is a genuine. Place, like period is a useful locating device. For a historian to be effectively research[illegible] nutrition of [illegible] is necessary. [illegible] domination of period is to become, the domination of one place is the likely consequence. Apart from there is more justification for centrating on single places than [illegible] single periods. To compare with that of a period, the study of a place can validly [illegible] sample. Moreover, the concentration on national history is understandable, even though the [illegible] sentiments and reasons of convenience [illegible] promote it, are dubious and indefensible. On the other hand, because identity is a relative matter, the study of a limited area in isolation is liable to misconception and the study of one place in relation to one place illogically of a generalization based on a study of the particular.

Historians are much less prone to study single places than single periods, thanks, for example, to the comparative treatment accorded feudal societies, parliamentary assemblies, the military revolution and crisis of the seventeenth century. This reason events happening roughly at the same time do not necessarily require to be studied within the same length of time, while developments happening at different times and frequently segregated by periodisation can have enough in common to justify comparison. Furthermore, as subjects of study, short periods have only a very limited validity. They cannot be used as a sample: a period cannot be expected to represent something larger than itself. Part of their value lies in the gains to be made from examining a large amount of matter in a short period of time.

Periodization can also be valuable as a dating device, as a means of temporal indentification. Moreover, in allowing a development or part of one to be studied in depth, short periods are useful for research purposes. And in allowing developments to be studied in breadth they are useful for comparative purposes as H. Kamen in *The Iron Century, Social Change in Europe 1550-1660* and W. Doyle in *The Old European Order 1660-1800* have shown. However, developments studied in limited periods, inevitably cause comparison, either explicitly or by implication, with related developments in other periods. The historian's fixation on a particular period makes comparison only possible between what he has deeply, and what he has superficially studied. To present the significance of a piece of research—a task which involves generalizing about what came before and after—a historian operating from a narrow period base is driven to commit an act of arrogant assumption that can place the conception of his research in a totally false perspective.

[redacted]

Short-term periodization best suits the study of events and their interaction with contemporaneous political systems, social structures, economic trends and ideologies. But for the exploration of enduring systems, structures and movements, it is grossly unwieldy, allowing only the careful examination of a fragment of the subject in circumstances which encourage its misconception. Long periods are equally at fault. For example, the commonly accepted distinction between medieval and medieval history creates nothing but problems for the study of political institutions and social structures. In the study of nobility or peasantry or monarchy, the medioval/modern or early/late modern distinctions create a false discontinuity in historical development, segregate historians at work on the same subject and discourage comparison of the earlier and later stages of the historical process.

The advantages of periodization, notably at research level, obviously rule against its exclusion from the historian's box of tricks. Research into fragments of subjects, conducted within the confines of a narrow period, is essential for the early stage of research, particularly in connexion with MA or PhD degrees. But why should such timidity control the whole research process? Research only acquires proper significance if eventually related to the development of the long-term past. To some extent, the historian's preoccupation with one place is a genuine. Place, like period is a useful locating device. For a historian to be effectively research[illegible] nutrition of [illegible] is necessary. [illegible] domination of period is to become, the domination of one place is the likely consequence. Apart from there is more justification for centrating on single places than [illegible] single periods. To compare with that of a period, the study of a place can validly [illegible] sample. Moreover, the concentration on national history is understandable, even though the [illegible] sentiments and reasons of convenience [illegible] promote it, are dubious and indefensible. On the other hand, because identity is a relative matter, the study of a limited area in isolation is liable to misconception and the study of one place in relation to one place illogically of a generalization based on a study of the particular.

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Is the past a foreign region?

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[illegible] history, Reformation, national [illegible] revolutions, Renaissance, Reformation, Royal Absolutism or Revolution. Their use least harms the study of events with only short-term causes and consequences. But in presenting events as significant, historians need to appreciate them as turning points in a long process. To be properly measured, turning points have to be seen against the broad span of time. In making this impossible and by imposing a narrow frame of reference, the short period can give an event a totally spurious importance.

Like movements and structures, events have a life of their own even their own natural time-span. For

[illegible] ism proper definition. And yet as a technique for tackling the past, it remains methodologically primitive and, casually, even spuriously used. Comparative studies of a systems or development strongly incline to present their findings in the form of a succession of one studies; and concentrated on one particular area and interrelated only by their common subject and by passing cross references. Such studies are false and pretentious forms of comparative history because rigorous and systematic comparison is not integral to them. When comparison is genuinely accomplished, there are dangers of incomplete coverage and inaccuracy of priorities nonetheless.

On the whole historians, comparative study tends to have a text-book purpose. It is not an integral part of their research which tends to be doggedly confined to a single place in a single period. Comparative history is something done between, research projects. It tends to be superficially conceived and slickly presented. Careful analysis remains the preserve of the historian's study of the particular. This is because, in the eyes of the historian, comparative history is brash and alien, the suspect instrument of the social and political scientist and offensive to the historians modesty and moderation. Needless to say, the historian's modesty is frequently false. When he concentrates upon one particular place, generalizations involving otherwise are inevitably made. Consequently he compares what he knows well because it has been the subject of his research and what he has to assume to be true because it is beyond the scope of his research. Thus the failure to pursue comparative study properly can result in arrogance and pretention.

What the history of Europe badly needs is historians who are prepared to consider seriously developments and events in a continental setting.

Local history is also badly in need of more comparative treatment at the research level. With notable exceptions, local historians have tended to be inward looking, preoccupied in presenting a locality not in comparison with other local communities but either in relation to its own past or in relation to the impact that a national movement or central government has had upon it. The same unwillingness to compare different areas has dogged world history. European and more [illegible] societies have scarcely been compared in a systematic and analytical manner by historians, although the feasibility and value of this approach has been demonstrated by, among others, Bendix, Coody, Anderson, Barkington, Moore, Critchley, Bendix and Huntington. For the most part historians hold back, leaving the work to social and political scientists and allowing the original inspiration and example of Weber, Marx and Hintze to pass them by. Compounding the historian's failure to research the long-term past has been his failure to pursue research within a broad geographical framework.

The massive expanse of periodised and one-place research in recent years has, in a sense, narrowed the historian's awareness of the past. Developments in teaching, especially with the failure of the full three course to provide an effective means of long-term coverage, have offered little counteraction. Confounded by the immensity of uncovered facts and interpretation, historians have fallen back on the study of one small place in one small period. The resulting atomization of research has isolated historians from each other as well as producing bits and pieces scholarship which has illuminated the past only through a multiplicity of pinpricks of light. A notable victim is the history of structures and systems which can only be properly studied in the long term and is best approached comparatively. All this was by no means inevitable. What has been unnecessarily abandoned is the attempt to form precise historical developments, the capacity for which depends upon the historian's ability to examine the past on a wide geographical basis and in the long term. To save historians from knowing too much about too little, the approach needs redirection, especially to allow a convergence of research through the linking of different periods and different places. The subject's neglect of the historian identifies himself by subject and explores his subject not only with particular reference to single places and periods but also comparatively within its natural spacial and temporal boundaries.

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Tony Payne looks at the uncertain future of the University of the West Indies in the current crisis

Caribbean conflicts shake community

The University of the West Indies is currently facing a serious political crisis which could lead to its complete disintegration as a regional university.

As presently constituted, the university (UWI) is a uniquely international institution of higher education serving no less than 14 separate territories which are the various sovereign and colonial states of the Commonwealth Caribbean: Antigua, the Bahamas, Barbados, Belize, the British Virgin Islands, the Cayman Islands, Dominica, Grenada, Jamaica, Montserrat, St Kitts, St Lucia, St Vincent and Trinidad and Tobago.

UWI was first established in October, 1948, at the Mona campus in Jamaica as the University College of the West Indies and awarded University of London degrees until 1962, when it was granted university status by royal charter. In that first year just 33 students were enrolled in one faculty, that of medicine. Today there are over 8,000 full-time students at the university in eight faculties and two more campuses have been established in Trinidad at St Augustine in 1960 and in Barbados at Cave Hill in 1963. UWI also maintains a physical presence in all the participating territories through its extramural departments.

In this sense the university has thrived. It has expanded the scope of its teaching activities, the general infrastructure has been well provided for and it has acquired a respectable international reputation in the world of higher education. This is what is now threatened by the political pressures being brought to bear upon the university.

UWI's political problems derive from the fact that it was never intended to have to cope with the conflicting points of view of so many different governments. The university was conceived at a time when it was naturally assumed that the various scattered British West Indian territories would eventually be released from colonial control as one integrated unit.

The report of the Irvine committee, which initially proposed the establishment of a regional university after touring the West Indies in 1944-45, reflected this assumption quite clearly. It stressed that its recommendation was for one university for none at all. Part of the case for this were the financial savings involved in centralizing the provision of university education in the region in Jamaica, which is the largest territory, but part also was undoubtedly the result of reflection on the likely future political development of the area.

Central to such thinking was the contribution that a single university could make to the emergence of what the committee termed a West Indian outlook. "We believe that if West Indian students could work together in surroundings of dignity and beauty, living in close community with each other and with teachers of the highest intellectual quality they would develop freely not as citizens of individual territories but as West Indians", it said. This was, in their view, "the only means by which the present divisions and insularities can be broken down".

Thus the establishment of UWI was to mark [illegible] political and economic unification. The "living together" and "working together" [illegible] federation" as the mechanism by which the various island territories could be led to full government and independence as a united group and the university was conceived as part of this process of "nation building".

In the event, the West Indies Federation collapsed ignominiously in 1962, after just four years of existence and the member territories have henceforth pursued their political ends on a separate basis as individual units. In contrast to territorial governments' support UWI, slightly over one-third independent, two are associated states seeking independence and three are still colonies, about which their own elected governments [illegible] unhelpful in that they are dependent [illegible] are [illegible] "income" position of the island state, but with the [illegible] character of the political "compromises" that can be worked out between fourteen states. That is its special problem.

To date, the university has at least survived. To do so, it has had to ride many waves in the politics of the region, but has been sufficiently resilient to be able to adjust its role in response to developments in the pattern of intra-regional relations. It survived the break-up of the federation to play a symbolic part in the revival of regional integration that took place in the Caribbean in the mid-1960s, and it also survived the early problems of the Caribbean Free Trade Association (Carifta) to be registered as a formal institution of the Caribbean Community (CARICOM), when the body was established in 1973. But it undoubtedly now faces its most serious political trials yet.

It is going to 1975 when the CARICOM heads of government conference meeting in St Kitts was presented with a paper from the Jamaican government, which had only recently declared its commitment to socialism, calling for "greater democratic participation in decision making" within the region's institutions, "especially trading [illegible] teachers, workers, students and parents". As a result, the conference set up an inter-governmental committee to review the role and function of university education in the Commonwealth Caribbean, but in fact has never met. It is to consider the committee's report [illegible] Education (Research, Science and Technology).

Secondly, it suggested that a major contributory factor to the university's lack of response to the "legitimate demands" of some of the states was "the complicated and cumbersome management structure and decision-making machinery of the university itself". The White Paper complained that, despite the emergence of some devolution of authority in the university, control over major decisions remained in the hands of central university committees operating from a headquarters in Jamaica. Given that the various contributing governments were coming to view the development and operation of the university with "different emphases (a nice euphemistic way to describe the emergence of socialism in Jamaica), it stated that "a structure must be evolved to cater for those differences otherwise complete breakaway of one or other unit is inevitable". Talks on these issues were set up between the Trinidad government and the university and are still being pursued.

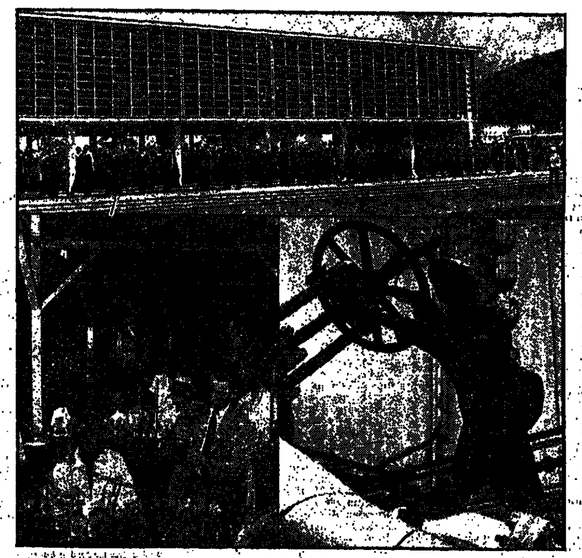
The threat of disintegration, as expressed in the White Paper, still remains. How likely is it to come about? In essence, the proposals contained in the White Paper derive from the fact that Trinidad's status as an oil producer has, since 1973, given it a capacity to pursue goals that are utterly beyond the resources of the other territories of the region. Data contained in the White Paper showed that Trinidad already contributed more to the university budget than was necessary to operate its own St Augustine campus. It is also financing the building at St Augustine of a medical school, which is the only facility the campus lacks to set itself up as a separate and fully fledged university. Many genuinely fear that when this is finished in a couple of years' time, Trinidad will pull out of UWI completely.

Whether or not this is Dr Williams's intention is anybody's guess at the moment, but such a move may well be precipitated, in fact, by developments in Jamaica. Since the publication of the Trinidad White Paper the condition of the Jamaican economy has slumped and it has become clear that Jamaica is massively in arrears in its contribution to the UWI budget. Some even mention a figure as high as $10m and claim that a letter from the vice-chancellor has been drafted, but not yet sent out, saying that the university can no longer afford to pay staff salaries.

The increasing level of violence in Jamaican society and the recent successive devaluations of the Jamaican dollar, which have had the effect of considerably reducing the local spending power of UWI salaries, have also made it increasingly difficult to attract staff to the Mona campus and have encouraged Trinidadians employed there to return home. Moreover, Jamaica faces a crucial election before the end of the year, in which the alternatives seem to be either a further move to the left by the present government and perhaps renewed talk of a "people's university", or the election of opposition leader, Edward Seaga, who some years ago expressed interest in the establishment of a separate Jamaican university.

All in all, then, the future of the university looks very uncertain. It is possible that some sort of loose framework might be worked out which would enable a university of the West Indies to exist, at least as the formal link between more or less autonomous campuses. Yet it is just as possible that UWI, as it has been, known, will fall apart completely. Events in Jamaica may precipitate this or the Trinidad government might decide to cut its losses and set up its University of the West Indies, which might or might not include the Cave Hill campus in Barbados. Whatever happens, UWI appears to face a turbulent and unpredictable future.

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Oil-rich Trinidad sees Jamaica's socialist aims as a threat.

BOOKS

Minefields of industrial unrest

Women Workers and the Trade Unions
by Sarah Boston
Davis-Poynter, £12.50
ISBN 0 7067 0198 4

The Fed: a history of the South Wales miners in the twentieth century.
by Hywel Francis and David Smith
Lawrence & Wishart, £12.95
ISBN 0 85315 489 9

By the Sweat of Their Brow: women workers at Victorian coal mines
by Angela V. John
Croom Helm, £11.95
ISBN 0 85664 748 9

Workers and Employers: documents on trade unions and industrial relations in Britain since the eighteenth century
edited by J. T. Ward and W. Hamish Fraser
Macmillan, £14.00 and £7.50
ISBN 0 333 15412 6 and 15413 4

by Kenneth D. Brown



Miners from Gorseinon, near Swansea, photographed in 1895.

Historical fashions like sartorial ones change rapidly, but few twenty years, now labour history has been among the leaders. Judging by the high rate of output it is in no danger of losing its appeal to the market. Admittedly some of the lines, such as those coming from the French house of Althusser & Co, and their rivals, Thompson Empiricists Ltd, appear to be designed for the historiographical equivalents of trendy boutiques patronised by a self-defined cognoscenti with somewhat exotic historical tastes. By the same token, perhaps, the books reviewed here are straight out of the Co-op, reflecting more traditional and older trends. Angela John introduces us to the little known female surface workers of the coal industry. Sarah Boston's book deals with the struggle for equal pay. Ward and Fraser offer us a cloth kit for home use; the label on Francis and Smith promises an orthodox trade union history.

Yet if the products are uniformly conventional the processes of manufacture are generally very modern. Labour historians already owe a tremendous debt to Hywel Francis and his colleagues for their industry in saving vast quantities of invaluable documentation relating to the working class in South Wales. Indeed, *The Fed* begins in fine style on a "gloomy Christmas Eve in 1968" with a description of the discovery in the South Wales Miners' Federation's Cardiff headquarters of much of the material on which the book is based. This source is well supplemented with extensive literary and oral evidence. Dr John also makes an excellent job of weaving significant material together with somewhat rarer books. The use of oral history in a book dealing with women coal workers is perhaps surprising but then it came as a revelation to me that the last female surface worker in Britain left the pits only in 1972. Most historians, like most nineteenth-century Englishmen, probably assumed that the banning of underground work in 1842 ended women's involvement in the coal industry. On the contrary the ban in so far as it was effective, left many displaced women looking for alternative employment and what more natural than that they should look for it at the pithead? The author also makes intelligent use of the diary of A. J. Mulby, poet and clerk to the Ecclesiastical Commissions, who seems to have been to Wigan pit brow girls what Gladstone was to London streetwalkers.

One wishes that Sarah Boston had been as adept at utilising her sources. She begins with the somewhat disarming confession that she is a trade union activist rather than a working historian, an admission that is hardly necessary since it is self-evident from the contents of her book. While the range of primary material is quite impressive its use is not always very discerning. Can she really believe that a "working woman's world have penned the following"?

> The utter monotony of life, the lack of coin and culture, the drudgery and the gradual lowering of the standard of living consequent upon the rising cost of living and increased responsibilities, was [sic] converting me into a soulless drudge and nagging scold. I felt the comradeship between myself and husband was breaking up (pages 83-84).

Much of the secondary literature is dated and patchy: the bibliography includes Sheila Lewenhak's *Women and Trade Unions* (1977) but omits both Lucy Middleton's *Women in the Labour Movement* (1977) and Norbert Soldon's *Women in British Trade Unions* (1978). Consequently some of the book's interpretations, for example of the new unionism (page 47), are distinctly old fashioned. Ignorance of work by Smelser and Anderson on the early cotton workers reduces her to explaining the textile unions' relatively early admission of women simply in terms of their "pioneering spirit" (page 23). It is true, and confirmed by Dr John's work, that male trade unionists, like many others in the nineteenth century, argued against women workers on moral and medical grounds. But as Brian Harrison has demonstrated in *Separate Spheres* (1977) such arguments did have some sanction from prevailing medical practice and belief, and it is thus less than just of Sarah Boston to dismiss all such arguments as covers for naked economic self-interest. Medical opinion has certainly changed but nineteenth-century man cannot be damned for his ignorance of knowledge revealed only in the twentieth century. Nowhere is this foolish gibe more evident than in the obloquy heaped upon men's views may have been conditioned by Pauline Christian teaching which, in its non-conformist manifestation, is widely acknowledged to have been a seminal influence on early trade unionists. Angela John is much more sophisticated and better informed in her handling of this particular theme.

Sarah Boston's central theme is not so much the development of female unionism per se as the struggle for equal pay. This is a good subject and one about which the author clearly knows a lot. She is on surer ground in dealing with twentieth century developments in general leaving the Edwardian period largely to specialists. Her treatment of the unions and the greater attention paid by the movement to women's rights but much of the historical context is left out in this simple black and white colouring. The Attlee Government is condemned for its failure to provide day nurseries without any regard to the enormous difficulties under which it laboured. The Industrial revolution appears as the evil process which forced women into capitalist servitude, the implicit—and highly questionable—assumption being that in some way pre-industrial woman was better off. In any case industrialisation affected men qua women but women as part of a vast casual labour force. In the same way, it was not only women workers who found themselves working very long hours during the First World War. At times *The Fed* is similarly coloured. There is not much sympathy from the authors for the worldwide economic problems facing coal owners in the interwar period. They wrote with approval of the Reid Report of 1945 which put the owners where they had long deserved to be, "in the dustbin of history" (page 436). Not that nationalisation changed things very much in this respect. In the last chapters of the book the disillusionment which set in, despite the enormous fund of good will which the miners themselves had for the National Coal Board, becomes apparent. Closure followed closure: the miners' welfare centres became bingo halls and a labour force which had been well over a quarter of a million in 1920 dwindled to 27,000 by 1978. Nor is there much sympathy for those workers whose economic situation grew so precarious in the depression as to provoke them into blacklegging or, worse still, into joining the company-sponsored South Wales Miners Industrial Union. Scabs generally get very little sympathy among labour historians. Their crime, it seems, lies in seeking the solution to economic hardship through individual rather than class action.

Inevitably there are some initial overlaps with Page Arnot's earlier history, but the authors really get into full stride on the period 1926 to 1947 which forms the core of the book. The SWMF was almost unique among British unions in that it dominated not only the working life but also the leisure, cultural and even religious activities of the Welsh coal valleys. Local lodge officials, for instance, "were acknowledged social leaders" and the village elders to whom the people went when in any kind of trouble" (page 42). As the union struggled to maintain its grip during the interwar period, hamstrung by an administrative structure which neutralized effective central direction, by the ravages of mass unemployment, and the activities of other unions and organizations like the Miners Minority Movement and the SWMIU, so the very society in which it existed threatened to disintegrate. The book then is really more than an orthodox union history. It is the history of a society that experienced all the deadliness of the depression and the drabness of the post-war consensus. Consequently the authors' collections are a bravo breed for they run the inevitable risk of upsetting other scholars' cherished notions about the importance of particular documents, and one would not wish to quarrel with the choice made here by the editors. The contents will doubtless be useful, not least because the time span covered by the book is a long one and, with a few exceptions, the extracts are generally lengthy ones. But while the absence of anything more than minimal editorial comment is motivated by the laudable enough desire to let the documents speak for themselves this ignores the fact that the existence of each separate piece is a reflection of the compilers' own interests, values and principles. One imagines that Sarah Boston would object, and with good cause, to the lack of references to women. The recent campaign for equal pay is neglected and even the heroines of the earlier age have, missing Emma Patterson, unaries and references, but neither Mary Macarthur nor Margaret Bondfield appear at all.

One suspects the latter—there was actually a branch of the Spanish Socialist Workers Party in Dowlais. Again, the degree of influence apparently exercised by the Communists in South Wales would appear to be unparalleled elsewhere in Britain, though this may well reflect the writers' own sympathies as much as historical reality. Arthur Horner is cast as the book's hero. Despite the accusations of the contemporary press (here, as always and everywhere, it seems, hostile to the miners) he is presented as a man of dedication, energy and principle, notwithstanding the difficulties caused by Moscow's frequent changes of tack in the late 1920s and 1930s. Yet Communist influence did not go unchallenged. One local cleric warned voters in a by-election that a Communist victory would mean the end of Sunday School trips to Barry.

Female pit brow workers form no part of the South Wales story. By 1900 there were only 732 of them in Wales, a year when the area's coalfield employed well over 200,000 men. It was in Lancashire that most of the women worked. Dr John's book is an ambitious effort than *The Fed* but the contents in their way are a model. Several interesting points emerge, among them confirmation of the view that miners' family lives were much stronger and closer knit then many older commentators would have us believe. The appalling ignorance about the realities of working-class life on the part of middle-class reformers is here confirmed; so, too, is the somewhat unscrupulous use made of the pit brow women by advocates of women's rights in the 1880s. Dr John's sympathetic yet critical writing is well set into the broader context of the late nineteenth century women's campaign and succeeds in bringing a little-known topic to the attention of historians in a lively and informative way.

Ward and Fraser, on the other hand, offer documentary extracts casting light on all the deadliness of the trade union cause. Compiled by collectors as brave breed for they run the inevitable risk of upsetting other scholars' cherished notions about the importance of particular documents, and one would not wish to quarrel with the choice made here by the editors. The contents will doubtless be useful, not least because the time span covered by the book is a long one and, with a few exceptions, the extracts are generally lengthy ones. But while the absence of anything more than minimal editorial comment is motivated by the laudable enough desire to let the documents speak for themselves this ignores the fact that the existence of each separate piece is a reflection of the compilers' own interests, values and principles. One imagines that Sarah Boston would object, and with good cause, to the lack of references to women. The recent campaign for equal pay is neglected and even the heroines of the earlier age have, missing Emma Patterson, unaries and references, but neither Mary Macarthur nor Margaret Bondfield appear at all.

The principles of choice can also be queried. It is understandable that a book dealing with trade union development and industrial relations should have a fairly narrow focus and try to avoid wider issues. But the story of the SWMF illustrates only too well the dangers of such an approach, particularly when there is no sustained editorial comment to provide the relevant context for each document. To all intents and purposes the Fed was synonymous with the society in which it worked. Trade union history cannot be interpreted in a vacuum and to present it in such a way is to limit the reader's understanding. There is, for instance, a good section dealing with the growing acceptability of unions in the third quarter of the nineteenth century, yet nothing is made of the concomitant decline of the wage fund theory, one of the main intellectual props of anti-union sentiment. Again, does the upsurge of industrial militancy after 1918, correctly characterized as "an increasing sense of confrontation between the two sides of industry" (page 222), make any sense without any reference to the impact of Bolshevism? After all, as Francis and Smith so ably indicate, communism was a major force in one of the most militant areas of all, the South Wales coalfield. What, too, is to be made of the editors' decision to archive politics, except where they impinged on the central theme? Of course this is largely a matter of personal judgment but it is surely dangerous to ignore the establishment of the Labour Representation Committee in 1900. In part at least it was a direct outcome of industrial hardening attitudes on industrial relations in the preceding years and the party's growth accelerated rapidly as the effects of the Taff Vale decision made themselves felt, particularly the unions were vitally affected in the economic problems which brought down Ramsay MacDonald's second Labour Government. They were even more intimately involved with the Attlee Government. Not less than three of the SWMF MPs held ministerial status in 1945, and the whole tone of industrial relations with its "no strike" agreement and tacit pay restraint, was set by the presence in Westminster of what trade unionists, rightly or wrongly regarded as "their government".

All in all then, a mixed bag of fairly conventional stories; a conventional if evocative history of the interwar SWMF which maintains the very high quality of earlier products of this type, as well as, adding some attractive flourishes; a useful pioneering book from Ward and Fraser, but one which has to be handled with care since the dimensions are not always very clearly marked out; a modest but well-woven potato in modern jurisprudence.

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Legal reasons for action

The Authority of Law: essays on law and morality
by Joseph Raz
Clarendon Press: Oxford University Press, £10.00
ISBN 0 19 825345 1

Legal philosophers are interested in such questions as: what moral value does the law have? what claims has it on citizens? what claims have they on it? Investigation of such questions intersects with legal theory, that is with speculations about the nature of law. Some jurisprudentialists back their claims with detailed information about legal provisions and institutions, while keeping philosophical analysis on a loose rein. With others, such information is sketchy or generalized, and technical philosophy is to the fore.

Dr Raz is a distinguished representative of this latter extreme of the jurisprudential spectrum. His writings display a mastery of competence in the professional philosopher's analytic skills. His style is painstaking and precise. There are no purple passages and no slipshod shifts of focus. No beginner will find his works easy to follow. They are for the tough-minded and advanced student of jurisprudence, for whom they are essential reading.

Critics have not generally found fault with the structures. Dr Raz creates, though some have disapproved of the bricks out of which he creates them. He has argued, for example, that legal systems are comprised of separable laws, as a pod contains peas; and that consequently legal theory requires "principles of individuation" which will enable us to shell out distinct laws. An opposing view is that a legal system is like a cake, from which slices may be cut to meet the requirements of particular enterprises; overall individuation being seen to serve no useful purpose. Raz has argued that the existence of each separate legal rule is a reason for action—just as the only other fact of the world, like the state of the weather, is a reason for action and that normative theory should concern itself with showing what sort of reason for action a rule's existence is. His touchstone is that a rule is both a reason for action and a reason for the first and second order reason for action. It provides a reason why some act should be done (first order), and it excludes consideration of reasons against performing the action (second order). Because it excludes reasons which would otherwise enter into the balance of reasons it is a "protected reason". An alternative view would be that we do not have to distinguish rules from other reasons, because the existence of a rule is not, of itself, a reason at all; it is so only in particular contexts and under certain assumptions.

These theoretical views about the nature of legal systems and of rules infuse many of the essays contained in the present volume, although a lot of the particular arguments are not dependent on acceptance of this theoretical baggage. Most of the essays contained in the first three parts have been published before. In part one "Law and Authority", we are told that a person has authority if his utterances are protected reasons for action; that it is an essential feature of law that it claims legitimate authority—that is, that those who man legal institutions assert that laws exclude all reasons for not acting as the law requires; and that there is an obligation to obey the law if this claim of the law is justified.

Part two, "The Nature of Law and Natural Law", comprises an assortment of essays about different themes in legal theory. Dr Raz provides a powerful defence of his version of legal positivism, of the claim that the existence and content of every law is fully determined by social facts. The converse claim is the anti-positivist view that, in many instances, you have to answer two questions in one: "what is the law?" and "what, morally speaking, ought the law to be?". The anti-positivist position presents problems for moral relativists; for how are they to accept descriptions of particular enterprises (overall individuation being seen to serve no useful purpose. Raz has argued that the existence of each separate legal rule is a reason for action—just as the only other fact of the world, like the state of the weather, is a reason for action and that normative theory should concern itself with showing what sort of reason for action a rule's existence is. His touchstone is that a rule is both a reason for action and a reason for

cretion by judges creates rather than applies law. Other essays in this part tell us that we need a theory for drawing a line between those rules enforced by courts which are really laws and those which are not; and that the validity of a legal rule means the same thing as that it is a binding exclusionary reason for action from some "point of view". These are strange claims. Imagine collaring a conveyancer who has written about the National Conditions of Sale (commonly incorporated in contracts) and the case law thereon, and insisting that he say whether what he describes are law or legally enforced rules, how many laws he has described, and from whose point of view they are binding.

Part three, "Internal Legal Values", is another mixed bag, discussing the functions of law, the English doctrine of precedent and the rule of law. Part four, "Moral Attitudes to the Law", contains new essays which do hang together. It is argued that there is no obligation to obey the law, that it never has the legitimate authority it always claims. At the same time, if a particular individual does have an attitude of respect towards the law (which he need not) then the existence of that attitude means that he is morally obliged to obey. Furthermore, in any "liberal" state—one whose laws respect the right to political participation—there is no right to public civil disobedience. Whether civil disobedience is justified on any occasion depends on the merits of the cause. But having no "right", one can never claim toleration for one's civilly disobedient conduct in a liberal state. Sometimes, however, one can claim toleration for private conscientious objection to comply with law, for to that one has a prima facie right.

The standard arguments for and against an obligation to obey the law are clearly set out by Dr Raz. But his case is complicated by the assumption that, if there were an obligation to obey, it must mean that all reasons for disobedience are to be disregarded, a view which depends on the questionable assumption that laws are, by their nature, "protected reasons" for action.

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J. W. Harris

One side of the Armenian story

Armenia: the survival of a nation
by Christopher J. Walker
Croom Helm, £14.95
ISBN 0 7099 0210 7

No people in modern history has suffered greater misfortunes than the Armenians. Under foreign rule since the end of the independent Cilician Armenia in the 14th century, divided in modern times between the Ottoman and Russian empires, suffering the massacres of the 1890s and the terrible killings and deportations of 1915-16, disappointed by the collapse of the shadowy independent state which emerged briefly after the First World War and now enjoying some semblance of self-government only in the small Soviet Republic of Armenia, their history is one of unsurpassable suffering and defeat.

It is this sad and bloodstained story which Mr Walker tells. A short introduction takes the reader to the end of the Middle Ages, when the development of Russian Armenia to the beginning of the First World War is sketched in rather less than fifty pages. The nucleus of the book is a much longer discussion of Turkish Armenia down to the collapse of the Ottoman Empire, followed by a substantial account of the pathetic if brief Armenian Republic of 1918-21 and its destruction. The fate of the Armenians under Soviet rule is dealt with in an epilogue.

The book is unmistakably the work of a partisan. Mr Walker believes passionately that the Armenians have suffered from the unrelenting and malignant enmity of the Turks and, to a lesser degree, of the Kurds and Tartars who have often been inspired in their hostility by the Turks. Almost equally indefensible, in his eyes, has been the cowardice and hypocrisy of the powers of Western Europe and the United States, and above all of Great Britain. These countries have repeatedly held out to the Armenians hopes of support, only to abandon and betray them when the cost of that support began to appear. The Armenian claims seemed to run counter to their own interests, particularly economic ones. A note of indignation, indeed of moral outrage, is clearly audible throughout.

Much of this outrage is justified. In 1911 to 1916 terrible things were done, and done with the knowledge of Turkish leaders such as Djemal Pasha and the active participation of many Turkish soldiers and officials. The western powers failed to do anything effective for the Armenians about the time of 1895 or after 1918. Yet the partisanship weakens the book by making it less complete and convincing than it otherwise might be. It should have acknowledged the claims of respected historians that the Armenians were at least in some part to blame for their own fate in 1915 to 1916; reference might well have been made, for example, to the recent debate on this issue between A. G. Hovannisian and S. J. Shaw in the *International Journal of Middle East Studies* (1978) or to the arguments of Professor Elie Kedourie in *The Chatham House Version* (1970).

The consistent criticism of British policy as selfish and cowardly is exaggerated and often misconceived. The crude gospel of Liberal and Conservative attitudes to the Ottoman Empire in the crisis of the 1870s, to take one obvious case, is over-simplified and old-fashioned.

The book is less than fair to the efforts made by Britain after 1878 to secure some measure of administrative reform in Anatolia, and certainly unfair in suggesting that the massacre of Armenians in the Sasun district in 1894 was the result of British policies two decades earlier. (Mr. Walker admits that there had been a limited rebellion "there in 1889 and that Armenian revolutionaries, members of that extreme Hunchak party, had since been active in the district.) The same criticisms apply to the strictures on the attitudes of the powers after 1918. Certainly their record was less than glorious. But too little attention is given to the sheer physical difficulties of acting effectively in so remote and inaccessible an area as eastern Anatolia, not to speak of the deep unwillingness of the British, French or American peoples to become involved there.

This is an interesting and readable book. Though it is based overwhelmingly on materials in English (the bibliography includes a few titles in Armenian, Russian and Turkish, but these have been little used) it provides, in a substantial appendix, a series of short biographies of over 130 leading figures in Armenian history since the early nineteenth century. These contain a good deal of useful information which is sometimes not easily accessible elsewhere. It is easy to sympathise with Mr Walker's feelings and the labour he has expended deserves respect. But what he tells us is one side of the story, though of a story which deserves to be better known than it is.

M. S. Anderson is professor of international history at the London School of Economics.

M. S. Anderson

BOOKS

Soviet scholars

Soviet Politics, Political Science and Reform
by Ronald J. Hill
Martin Robertson, £12.00
ISBN 0 85520 331 5

The essentially static nature of the political system in the USSR has long been a source of irritation for intellectuals in the West, since change is much more interesting to talk about. So every few years a new set of theories is propounded about apparently observable, or inevitable, movement in the Soviet body politic. The East is not without its hopeful seekers either. Dr Hill's latest book explores, in a knowledgeable and considered manner, suggestions for change and improvement which have been made openly and with official approval by Soviet scholars in the USSR.

He delineates five main areas of interest. The first is the electoral system itself, the key question here being the plurality of candidates. The Soviet custom of having one approved candidate per ward and includes: "and it largely precludes then making everyone vote for him (or her) is well known. There has, it appears, been some published discussion on possible changes, but despite faint rumblings about improved selection of the *single* candidates, no proposal for multi-member constituencies has ever, Dr Hill believes, appeared in print.

A related topic is the role of the deputy after he has been elected: but given the method of selection, and all the restrictions on association or information, what room is there for anything on his part but conducting subservience to state policies? Suggestions here have evidently been limited to improving such mild consultative functions as he has.

Local government, which is the next subject, has traditionally been a weak and neglected sector in the USSR. Here, we find, the debate has centred mostly on the comparatively safe topic of the relationship between the elected deputies and the permanent apparatus, rather than on any significant shift in the balance of power.

The role of public opinion in Soviet politics has exercised many minds, and Soviet scholars have evidently been directed to make as much as they can of it. In fact their work seems to be confined largely to abstract analysis of the problems of articulation. As far as the leadership is concerned, public opinion is only there to be formed and controlled. The fact that some people sometimes express views which do not fully fit the official *schablone* should surprise no one, though the fate of serious dissenters is not open to doubt.

The last area which Dr Hill covers is discussion of the role and function of the Communist Party. "Improving the efficiency of the party apparatus in ruling society effectively . . . is the role of Soviet writers on the party," he concludes: "and it largely precludes severely critical analysis and radical proposals for reform. Nothing so much as hints at a questioning of the party's right to decide policy: all is directed to improved selection of the *single* candidates, no proposal for multi-member constituencies has ever, Dr Hill believes, appeared in print.

By reporting on what passes for political science in Soviet conditions, Dr Hill is performing a useful service for us. But the results which he has been able to demonstrate are exceedingly modest, and despite his claim, can hardly play a part in what he terms the Soviet system's "evolutionary change".

Mervyn Matthews

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BOOKS

Foreign labour

The New International Division of Labour
by Fölker Fröbel, Jurgen Heinrichs and Otto Kreye
Cambridge University Press, £25.00
ISBN 0 521 22319 9

For many, the poverty of Third World nations has become synonymous with a pattern of international trade (except for oil) in which expensive manufactures from rich nations are bartered for cheap primary products from poor nations. Fölker Fröbel, Jurgen Heinrichs and Otto Kreye argue, however, that beginning in the early 1960s international capitalism has entered a qualitatively new phrase. Transnational corporations are now "rationalizing" their *industrial* production for a world market, transferring processes and parts of processes from country to country in a restless, relentless search for maximum profits.

This new phase of capitalism is based on three fundamental conditions. First is the presence in the Third World of a virtually limitless number of cheap, docile workers; a "world-wide industrial reserve army" whose wages may be only 10 per cent of the wages of European workers, whose working hours are longer, whose productivity, after only minimal training, is usually as high or higher and whose individual or collective rights are generally non-existent. Second is the refinement of technology and job organization which enables complex processes to be broken down into elementary tasks requiring relatively unskilled labour and capable of separation in time and space. Third, and really new, is the development of transportation technologies, from air-freight to container transport, which achieves a speed, certainty and cheapness hitherto unimagined. Finally, one ought also to mention the development of the institutional superstructure which a true international division of labour requires—the international law, multinational organizations and bilateral relationships which arbitrate commercial disputes, which ensure nice accounting and transport and communication networks, which eliminate such possibilities as double taxation and which intervene to quarantine the carriers of infectious diseases, anti-trust, bubonic-plague or radical socialism.

The results of all this are clearly seen in developed nations. Fröbel et al begin with an examination of the textile and garment industry, noting that in the European Community employment in this area fell by 752,800 between 1965 and 1974. Despite substantial increases in labour productivity in West Germany, the iron law of competition had forced, by 1976, 45 per cent of textile firms and 10 per cent of garment industry firms to maintain some form of production abroad. Skilled design work and pattern cutting is generally still done in Europe while the labour-intensive sewing and making up is done by sub-contractors or subsidiary companies in Eastern Europe or the Third World. Currently, these foreign sites usually import raw materials or partially made-up goods and re-export finished products, but increasingly they are procuring cheaper raw materials locally. Both capital-intensive and labour-intensive processes are vulnerable to imported relocation since (unlike Western Europe) there is no difficulty in obtaining night shift workers and holiday labour to enable the operation of expensive capital equipment for 24 hours a day, every day.

In a second case study, Fröbel et al estimate the total foreign employment of all branches of German industry is some 1.5 million workers—which is a large number for any nation but a small number for the world as a whole. Some 550,788 of these could be traced specifically: 176,438 were in other industrial countries, 177,798 in Brazil and 126,838 in Spain, India, Argentina and Mexico. Clearly overseas investments will follow well-worn grooves.—In me, the concentration of this investment is more surprising than the large number of countries in which German industry has some small share of employment.

The book ends with an examination of free trade zones and an analysis of the assembly operations (electronics, optical) which characterize them. Overwhelmingly they employ young unskilled women as production workers and offer low wages and poor working conditions. Up to this point, the authors differ from mainstream economists only in vocabulary and "tone", but when they conclude that production for the world market will not aid in the development of poor nations, they are on far shakier ground. True, electronics assembly plants are almost total enclaves, buying little but labour from the surrounding economy, but are they not quite unlike the garment factories cited earlier? Can one really conclude from two (inconclusive) examples (page 373) that the foreign exchange costs of free trade zones "often" exceed the benefits? True, workers receive abysmally low wages in these factories, but ought one to romanticize the lot of women, and especially young women, in the family division of labour which otherwise prevails in most underdeveloped countries? Nowhere among the many tables of this book does one find a comparison of the wages paid in world market factories and those available in local industry or agriculture. The basic fact about the Third World is its abject poverty. Nothing in this book enables one to say whether this poverty is lessened for those in the Third World who find employment in world market factories.

The word "development" can have two quite different meanings: either, a rising material standard of living as evidenced in improved nutrition, education and housing; or the development of "complex industrial structures" with balanced linkages which could enable a nation to achieve economic independence from the world market. Fröbel et al confuse these two ideas hopelessly but appear, in practice, to believe that the second is important. The people of the Third World are mainly interested in the first. Can they have the first without the second? I believe Marx would have answered in the affirmative—indeed that Marx would have argued that it is the historic role of capitalism to create a world market and a truly international division of labour which destroys both the social formations of, pre-capitalist modes of production and their legacy of material poverty. (See, for example, Karl Marx, "The Future Results of British Rule in India", *New York Daily Tribune*, August 8, 1853.)

This book, however, follows a modern fashion which equates *necessarily* "dependency" and "poverty", which argues that capitalist development isn't really development because it is uneven (forgetting that capitalist development is always uneven) and which fails to face the contradictions which the world market creates between the interests of workers in rich nations and those of workers in poor nations.

The book is also very hard read. The idea that capitalists generally want to make money becomes (page 24) "The sole motive of the capitalist. Inasmuch as he functions as the conscious representative of this movement, he is the unlimited appropriation of abstract wealth in the form of money." This sort of verbal flatulence is combined with an undiscriminating barrage of statistics. On page 142, for example, we are told the exact country of origin of all the air freight shipments of clothing into Germany of 1970 and 1976. (I have read this section four times now but I fail to see why I should care in such detail.) Only the most persistent patient will discover the interesting fact that one can find on page 274 the number of German subsidiaries in the stone, glass and ceramics industry by geographical area and by year. On the other hand, such detail guarantees that this will be a useful reference work for years to come, and the importance of the topic should guarantee a wide readership.

Lars Osberg

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Unemployment in 1985

Readings in Labour Economics
edited by J. E. King
Oxford University Press, £15.00 and £7.95
ISBN 0 19 877132 0 and 877133 9

Economic Change and Employment Policy
edited by Robert M. Lindley
Macmillan, £13.00 and £6.95
ISBN 0 333 28749 5 and 28750 9

Labour in the American Economy
by Everett Johnson Burtt
Macmillan, £15.00
ISBN 0 333 28103 9

It is not so long since labour economics was commonly seen as one of the dullest and most unfashionable areas of economics. An area occupied for the most part by uninspired people, often thought to have overalls hanging up behind their office doors, who taught very standard neoclassical labour theory with a heavy dash of institutionalism.

Now the subject has become alive with controversy, a change brought about largely by theoretical and analytical developments. Many of these have been neoclassical in form, for example the theories of human capital, search, and signalling, but some—for example segmented labour market theories—have been termed "radical" views of the labour market. In Britain empirical research has been stimulated by the availability of statistics (still crude by American standards but vastly better than those which previously existed) generated by the New Earnings Survey and the General Household Survey.

King deliberately sets out to capture the controversy in his *Readings in Labour Economics*: "in selecting . . . I have tried to convey something of the atmosphere of this guerilla warfare between orthodox theory and its critics." He clearly sums up the outcome of this struggle: "some blood is shed, but there is no decisive battle; no one ever wins (or loses)."

The 38 readings are divided into five sections each preceded by an eight or nine-page introduction setting the contributions in their context and signposting other pertinent work.

One can always find something to disagree with in a selection of readings, but I was pleased to see King included two pieces by Lester C. Thurow. Some of the readings on the macroeconomics of the labour market, where there is a considerable overlap with inflation theory and economic policy, might have been omitted to further strengthen the other sections, but this is a minor quibble. The book is highly recommended and is, by today's standards, good value for money.

Economic Change and Employment Policy is the first of a series of reports on the work of the Manpower Research Group at Warwick University. The common aim of the contributions is to forecast employment prospects in 1985. The book gets off to an old and uncertain start with a very defensive chapter in which Robert Lindley goes out of his way to anticipate criticism and attacks Beenstock who has apparently cast doubts on the wisdom of the methodology used.

With critical faculties duly sharpened one is then introduced to the forecast of the British economy in 1985 which forms the major part of the book. Assumptions about variables taken to be exogenous and about government policy (unchanged from 1979) are given but the model itself is not discussed in any detail (a very brief description of some aspects is included in an appendix). The depressing, and by now familiar, forecast of 3-31 million unemployed duly emerges.

It seems quite useful and important to make five-year forecasts on the basis of unchanged policy if, like the group centred on the Department of Applied Economics at Cambridge for example, one is attempting to demonstrate the need for a *change* in policy. Here, however, the forecast is subsequently broken down in considerable detail to predict changes in occupational and industrial employment, and the point of doing this is not at all clear.

The more interesting parts of this work, in fact, concern the past, but these are often dealt with too briefly. For example, there are inadequately explored references to a puzzling phenomenon of British labour markets: both in the case of professional engineers and skilled manual workers there are alleged shortages, yet their relative pay has declined. This is open to various interpretations, of course, and some of King's readings could usefully be perused for guidance, but the treatment here is rather mechanical.

The authors have also tried a bit too topical—there are many references to the Conservative manifesto and the Queen's Speech of 1979, for example. Thus the book is likely to date quickly, probability that the publisher seem to have recognized as the review copy was failing to arrive on arrival.

Burtt's book is heavily orientated towards a description of the American labour market. The preface with its references to the contributions of labour economics to the analysis of important social issues gives one hope, this is soon dispelled. The book is very descriptive; formal analysis is very rudimentary and kept to a minimum. It is difficult to see this work making much headway in the British market.

Keith Norris

Dr Norris is reader in economics at Brunel University.

Who's really with the Woolwich?

The Building Societies
by Martin Boddy
Macmillan, £10.00 and £3.25
ISBN 0 333 27150 5 and 27151 3

As early as 1872, a Royal Commission noted that "it appears indeed unquestionable that whilst the smaller, terminating societies remain very often still under the management of the working classes, or of persons very near to them in point of station, the larger permanent societies at least are almost invariably under the direction of the middle class."

The terminating societies had begun in the late eighteenth century as a means by which the more prosperous members of the working class could come together to save in order to build or purchase housing. The society terminated when each member had acquired a house, unlike the permanent societies which borrowed from and lent to different and changing groups of people. These only dated from 1836 (possibly because more people had enough money to join the terminating societies, both in terms of size and then in terms of numbers), perhaps because, as the commission reported, they appeared to be mainly agencies for the investment of capital, rather than for enabling the industrious to provide dwellings for themselves.

The societies' role as "agencies for the investment of capital" coupled with the growth of home ownership, has led to their becoming major financial institutions. Indeed the societies now hold a higher proportion of the financial assets of households than, say, held by banks, pension funds or company securities. Only the life assurance companies hold more.

The aims of Boddy's book is the exercise between the ideology, origins, and social responsibility of the societies on the one hand, and their present role as financial institutions on the other. His argument is more usually implicit rather than explicit, and the book should primarily be regarded as an exhaustive descriptive guide to the building society movement and the housing market in Britain today, covering the characteristics of borrowers and investors, the relationship of the societies to the finance market, the organization of the societies, an outline of their history, and a discussion of recent housing policies and the societies' role in their implementation.

In Boddy's view the societies' ideology is rooted in the Victorian virtues of thrift and mutual self-help, and this ideology is implicit in the image they try to project in their advertising, but in fact they are major financial institutions being run on efficient, for-profit-making enterprises characterized by an extreme unwillingness to take risks. In most respects their actions conflict with their image and origins. Thus despite the societies' portrayal of themselves as vehicles for the small investor, 95 per cent of the societies' funds are provided by the minority of investors holding large sums of money in their accounts.

On the lending side societies' policies have tended to discriminate against the working class who have less regular incomes, than the salaried middle class and against older property in the less salubrious areas. The result has been the virtual elimination of building society lending in many inner urban areas where buyers have had to look elsewhere for financial institutions charging higher rates of interest.

An alternative interpretation of these facts is that the societies have interpreted their social responsibility very narrowly and regarded their main responsibility as being to charge as low an interest rate to borrowers as possible. This can be achieved by paying a low interest rate to lenders and by liquidating as far as possible any losses which might arise because of default. The former policy means that the societies will never have enough funds to satisfy all requests for loans and therefore that they must ration them in some way. The most easily justifiable form of rationing also fulfils the second policy, in that no loans need be made which might conceivably be regarded as risky. Those restrictions on lending were certainly successful in eliminating losses; in 1977 these amounted to only 0.0009 per cent of the societies' total assets. It is, however, questionable whether the societies are properly socially responsible in behaving this way.

Boddy's preferred future housing policy is that all owner-occupiers would have to sell their houses at a price determined by the cost of construction to some democratically constituted "public agency which would then allocate dwellings "according to social priorities related to need". It is doubtful whether such a policy would have a chance of being adopted in this country in the foreseeable, or any other, future.

It is curious, however, that the owner occupied housing market in this country incurs so little governmental intervention. This is in marked contrast with the United States, where a large number of federal and state housing programmes have been involved in the housing market. One possible reason would be a system of government guaranteed mortgages similar to that which has been in operation there. This would at least overcome the provision of housing finance as a "first" borrowers. A more favourable change and one which is more feasible is that the societies are likely to charge a higher rate of interest to borrowers at the moment. This is likely to come about simply because the building societies are having difficulties in borrowing the funds necessary to finance housing in the same way as they have done in the past. They are provided to a wider section of the community since funds would be rationed by price rather than bureaucratically, allowing societies to fulfil their social responsibilities in the wider rather than the narrower sense.

Alan Evans

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BOOKS

Poetry and propaganda

The Unacknowledged Legislator: Shelley and politics
by P. M. S. Dawson
Clarendon Press: Oxford University Press, £16.50
ISBN 0 19 812095 8



Shelley's "Queen Mab" at the centre of a Cruikshank group of revolutionaries, taken from Shelley and his World by Claire Tomalin (Thames and Hudson, £5.95).

As Dr Dawson says, Shelley was attempting to revive the heady principles and speculations of the 1790s "in the far from congenial atmosphere of the 1810s". He is right, too, to regard much of Shelley's poetry as a propagandist extension of the politics expressed more soberly in his prose.

"Essentially this book is concerned not with criticism, intrinsic or extrinsic, but with scholarly background. Dr Dawson takes it as self-evidently a Good Thing that Shelley's politics should be better known and better understood; and he may well be right. Shelley's thinking—usually not *directly* expressed in his verse—is wide-ranging, often profound, and sometimes brilliant (if cranky); it is also eclectic and fragmentary, for his life was busy and brief. This study makes an excellent, thorough job of fitting the jig-saw together and deducing the missing pieces that would complete the picture. It goes far to show that Shelley was not the wild and woolly fanatic that some of his verse seems to imply."

The logical extremism he inherited from Godwin was moderated by the practicality of Fox, the common sense of Paine, and even, surprisingly, something of Burke's traditionalism. Although he believed that a moral-psychological revolution must precede any successful political one, he did not share Godwin's view that political action could not contribute to moral change. He wanted federal republics by gradual peaceful revolution; and saw that violent revolution was bound to be counter-productive. He was the first to answer Malthus by advocating contraception as an alternative to tacit acceptance of famine and war as the restraint of population growth. He anticipated modern psychological distortion in stating external violence as suppressed energy, a projection of internal self-corruption and repression, in seeing God "not indeed" Nature, as a power to abhor"; in a projection by men of faith. Shelley, however, with a common sense almost amounting to cynicism, was reluctant to adopt verbally that part of the illusion which could be considered beneficial. In short, to adopt Dr Dawson's distinction, Shelley was a shining example of metropolitan moderate radicalism as opposed to the fiercer, cruder provincial kind.

Shelley's political prose, then, is a subtle mixture of the moral, the psychological and the metaphysical. All rather abstract, and therefore, one might imagine, difficult material for poetry—especially poetry dedicated to abstention from the direct expression of ideas and information in favour of the arousal of appropriate and receptive emotions.

It is a mistake to suppose that I dedicate my political compositions solely to the direct enforcement of reform, or that I consider them in any degree as containing a reasoned system on the theory of human life. Didactic poetry is my abhorrence; nothing can be more equally well expressed in prose that is not tedious and supererogatory in verse. My purpose has hitherto been simply to familiarize the highly refined imagination of the more select classes of poetical readers with beautiful ideal*isms* of moral excellence.

(Preface to *Prometheus Unbound*)

The enterprise is justifiable enough. Dr Dawson sums up Shelley's subtle perceptiveness well:

> True morality depends on the activity of the imagination that frees man from the confines of the little world of self . . . and poetry surpasses dogmatic moralising by arousing this imaginative activity. (page 239).

It is not, however, an easy enterprise. *The Mask of Anarchy* and *Peter Bell the Third*, poems concerned directly with contemporary politics, are not difficult to explain in terms of Shelley's political theory, but Dr Dawson—like every other commentator—has a hard, and inconclusive, struggle with *The Triumph of Life* and *Prometheus Unbound*. For it is a fact that symbolic images figuring complexly related moral-metaphysical-psychological abstractions are rarely self-explanatory; so that Shelley's long non-lyric poems share the same difficulty as those of Blake. The *attempt*, then, is justified; but that fact does not guarantee its *success* as poetry (or propaganda). And Dr Dawson's brief remarks against accusations of "vagueness" in this poetry tend rather to explain how it comes about than to justify it. In fact any discussion of the relationship between the verse and prose is hard to find, and, when found, is rather perfunctory. Is there a strain of forced rhetoric in the poetry, and if so is it due to an attempt to propagate the right ideas at the wrong time? Is propaganda automatically damaging to poetry? Is Godwinian perfectibility a subject amenable of treatment in verse? Above all, should one study Shelley's political prose for the light it casts on his poetry, or vice versa? These questions remain unanswered; indeed, largely unasked.

In short, an excellent book of its kind, but one leaving room for a follow-up of a different, more literary, kind.

Allan Rodway

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Stevenson's life and art

Robert Louis Stevenson: a life study
by Jenni Calder
Hamish Hamilton, £9.95
ISBN 0 241 10374 6

Robert Louis Stevenson poses enormous problems for the biographer. His literary careers have been so decisively marked by the personality, both the author and the character, that he strangely little of himself directly revealed in his work.

Considering the obscurity in Stevenson's constant self-dramatization and his deliberate and naive insistence on an absolute distinction between life and art, Life, he once wrote, in response to Henry James's mysterious, diffuse, illogical and "unpleasant" art, by contrast must be self-contained, flowing and simple." There is also a strong suggestion that Stevenson, much like Barrie, sought in fantasy and play compensation for the miseries of his life. Yet Stevenson was a most conscious and accomplished artist than he is often credited with being, and the constant artistic credit, mixed with inner anxiety and guilt, and anxieties. Living too much in (his) work and too little in life", Stevenson was never able to make his talent reverberate in the wider contexts of public life, family and national history; half in defiance against him by his engineer father, and by a Victorian Edinburgh still residually Calvinist, Stevenson obsessively examined his inability to reconcile his inner and outer lives, to combine the creation of literature and the building of lighthouses. In *RLS: a life study*, Jenni Calder sets about unravelling the tangles of Stevenson's life in an attempt to finally reconcile the man and the artist. The very complexity of the subject dictates both the book's shortcomings and its strengths.

It seems necessary to question the validity of another biographical study of Stevenson which contains no significant body of material not included in earlier books by Balfour, Furnas and Doris Dalgliesh, and which depends very heavily on published sources and secondary texts. However, this is Mrs Calder insists, not a study "rather than an exhaustive biography, its aim being to capture the essence of the man rather than to rehearse the facts of his life. Predictably, in the light of her earlier concerns, Mrs Calder concentrates on the mythic proportions of her subject and the talent was, in the personality. . . . His genius lay in who and what he was rather than in the products of his pen". The testimony of friends and admirers forms the bulk of the circumstantial evidence for this conclusion and Mrs Calder is often uneasy with it. Her account relies too heavily on inference and surmise and the presentation is consequently elliptical and oblique.

The most disappointing aspect of the book is Mrs Calder's treatment of Stevenson the artist. A writer of intense but erratic genius, Stevenson surrendered himself to the discipline and craft of writing with a conviction matched only by James. Art was, he believed, a "state" not a "practice" and he dedicated (dangerously) much of his life to making of himself a catalyst which depersonalized experience, "crystallizing" it into art. Stevenson's relevance to contemporary fabulatory styles is increasingly obvious, as is his direct influence on figures as diverse and important as Hemingway, Jack Dinesen and J. Borges. In failing effectively to present a rounded picture of Stevenson, Mrs Calder has largely neglected the centrality of his aesthetic to his life and self-image.

Stevenson never made matters easy for his biographers. In exile, and no longer able to exert the power of his personality directly, Stevenson recognized that he had become the victim of his own myth, a "fictitious article", and he paid the price in isolation and misunderstanding. Despite its somewhat graceless title and its periodic nervousness, *RLS: a life study* is a fine and welcome attempt to dissect the myth. Beautifully printed and illustrated, it provides an attractive introduction to one of the nineteenth century's most fascinating and mysterious figures.

Brian Morton

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The Greek ideal

The Victorians and Ancient Greece
by Richard Jenkyns
Blackwell, £15.00
ISBN 0 631 10991 9

In his introduction to this brilliant study of Victorian cultural history, Dr Jenkyns remarks that many of the finest minds of the last century were preoccupied with ancient Greece. True beyond doubt, but this fact was the outcome of a "second Renaissance" as decisively orientated towards Greece as the first had been towards Rome, a revolution in western thought and sensibility in which British and German writers played an important role: these developments had been in progress for nearly a century before the Victorian era. The author traces their origin to the visit of Stuart and Revett to Athens in 1751, and their masterly vindication of the Doric style as representing the supreme achievement in ancient architecture, which, until then had been credited only to buildings and sculptures in the derivative Greco-Roman tradition.

Not long afterwards Goethe was being urged by Herder to study Greek in order to read Homer and Plato in the original and thus apprehend "truth, feeling and nature"; such objectives had much in common with those of the English Romantic movement, which in turn gave a powerful impetus to the appeal of Hellenism. Gibbon was perhaps the last standard-bearer for the supremacy of Latin studies which had underpinned the Augustan epoch in English culture. After 1789—it was the republican and anti-monarchical ideals of the Greek city states which inspired the rising nationalisms of the Old world and the New.

These antecedents help to explain Dr Jenkyns's contention that those personalities who now seem to us quintessentially Victorian, including Carlyle, Disraeli, Gladstone, Dickens, George Eliot, Ruskin, Kinglsey and Tennyson, were born between 1800 and 1825—well before the reign began. What makes this book especially impressive is its combination of a panoramic sweep of vision with a microscopic attention to detail, which can pick out the Hellenistic themes in George Eliot's novels, "so the affinity between *The Wreck of the Deutschland* and Pindar's Fourth Pythian Ode." Amid this wondrously diverse assemblage of writers, artists, politicians, headmasters, and ecclesiastics, one may discern two broad categories—those whose dislike of or desire to escape from the conditions of their time found a convenient vehicle in the Greek ideal, and those who loved it for its own sake. Many, of course, contrived to commute between the two positions.

Some were professing against the materialism and philistinism engendered by the industrial revolution ("getting and spending we lay waste our powers"); some valued the Greek ideal above all as a liberating force, whether in politics, religious toleration, or sexual conduct; some believed that they were living in an age of inferior creative power and considered the unique feature of the Greek genius to be the entire absence of imitation in its productions; some, such as Arnold, sought a replacement for their faith, or, such as Swinburne, a weapon against Christian doctrine. Later, as the age advanced, romantic excesses were discarded in favour of Hellenic discipline and serenity, or a blind eye was turned to Plato's writings in order to accommodate the doctrine of art for art's sake.

For the more pragmatic Victorians, vanity also played its part; starting from Aristotle's dictum that the peoples of the cold north are full of spirit but short of intelligence, and the Asiatics the opposite, the British, comparing themselves with the sluggish Scandinavians and the lazy Latins, could happily identify with the Greeks. In such quarters ideals derived from Homer were of great importance. Mr Gladstone, while opposing the Divorce Bill and simultaneously writing his *Studies in Homer*, could emphasize the complete absence of divorce in Homeric society. And the precept impressed upon Achilles—always to be the champion and excel over others—lives again in the pages of Thomas Hughes, Dean Farrar and other novels of school or university life, though Tom Brown on his last day at Rugby modestly wonders whether he would have benefited more from thoroughly mastering Greek particles or cricket—"I'm such a thick, I would never have had time for both".

Passing to the visual arts, the chapter on *The Consequences of Sculpture* explains how the condition of nudity, though theoretically familiar as a fact of everyday life in the ancient world, came to be regarded as a specific element in the package, so to speak, of the Greek ideal. As Swinburne wrote:

> We shift and bedeck and bedrape
> . . . . . us
> Thou art noble and nude and antique

Certainly no one had ever written of the Romans. The Victorian reaction is epitomized in this peculiar fascination of the age with the Pygmalion legend, and in particular in Burne-Jones's series of paintings depicting the incarnation of the Statue-woman, with their significant captions, *The Hand Refrains*, *The Soul Attains*.

The book, as might be expected, tells us much more about the Victorians than about the Greeks. It shows a sure grasp of the complex motives which activated the former, is lucid in its train of thought and superbly felicitous in quotation. The author's wit is a multi-purpose instrument, usually exercised with geniality but occasionally with lethal effect, as in his judgment on Pater: "curiously his misfortune was that evelosh was not only on his lips, but occupied the very citadel of his heart."

Ian Scott-Kilvert

Ian Scott-Kilvert was formerly director of literature at the British Council.

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BOOKS

Motives for protecting the environment

Environment, Ideology and Policy
by Francis Sandbach
Blackwell, £12.50 and £4.95
ISBN 0 631 10491 7 and 12811 5

Conservationists beware! When you oppose waste reprocessing at Windscale and the building of a motorway round Winchester you are being "duped into the dominant political ideology of pluralism". I am sorry about this, for I am a conservationist myself and have much sympathy with the Friends of the Earth and the opponents of the motorway. But Mr Sandbach tells us we are shooting at the wrong targets. The real enemies of the environment are not nuclear *technocrats* or civil engineers: they are "the ruling class", "the social order of capitalism", "private enterprise" and in general all those who, pretending to encourage participation by the public and to reach compromises and consensus in the public interest are really propping up the *status quo*. Policies for the protection of the environment, like policies for state ownership of the means of production, are all subsumed under the cryptic epigram written by Karl Marx: "Ruling ideas are the ideas of the ruling class". (Does this remind you of the definition of an archdeacon as a man who performs archdeaconal functions?).

No prizes are offered for a guess as to the political preferences of Mr Sandbach. But Mr Sandbach himself does deserve a modest prize for writing a book about environmental policy which, at least, looks at the issues in a fresh way. Much of the book covers ground so well trodden already that one searches in vain for a blade of fresh grass. But Mr Sandbach does challenge those who have been treading the ground for years to have another look: is there something beneath the familiar outline? This confidence-trick by Mr Sandbach is worth while if you are so socially deprived that you fall into the category labelled "none of these". But wait a moment! Their is the assumption of pluralistic functionalism, that "there must be a consensus of public opinion for social change to take place". In other words, politicians pass laws to control pesticides and to limit the pollution of air and water because it is in the public interest. Not a bit of it. Did you not know there is a Marxist explanation? "In a capitalist society the state and the means for dealing with environmental problems are influenced by the ruling class." The economic system imposes constraints; the ambit for reform "is accommodated so as to control the worst abuses of capitalism and thus consolidate the social order". Select Committees and Royal Commissions are engaged in cosmetic politics, tarring up the capitalistic system so that the wrinkles of senescence do not show. The mass media, being parasitic upon "advertisers and the commercial interests ... of publishers", naturally condone this.

Mr Sandbach then examines welfare economics and the use of cost-benefit techniques for decision-making in environmental policy. He discusses the shortcomings of the common law of nuisance as a weapon for the ordinary citizen to use against the capitalist exploiter. It is (as he says) a David and Goliath situation, though he omits to emphasize that Davids sometimes win, as they did in the *Pride of Derby v. British Celanese* case in 1953 when the victors were simple citizens who enjoyed coarse fishing at weekends. He offers the conventional (and, I agree, correct) indictment of cost-benefit analysis, namely that it tries to put a money-tag on imponderables like the tranquility of a river and the clarity of the air, though there are some unfortunate gaps in his summary. Why (for instance) has he not taken account of the seminal work of Laurence Tribe on the assessment of imponderable benefits in environmental issues? And why, when he criticizes the use of the Pareto optimum has he nothing to say about the Kaldor-Hicks criterion, which is the usual solution to the dilemma?

From cost-benefit techniques, Mr Sandbach passes to environmental impact assessment. He has a good summary of the state-of-the-art and he identifies its outstanding weaknesses, namely that it disguises as technical (and therefore rational) problems which are really political and social (and therefore not all susceptible to rational analysis). And, of course, because they are political and social, we are reminded that "capital owners and the ruling class are better able to ensure that the process of evaluation, or the mechanisms of the market, operate in their interests".

The ruling class is the protagonist in Mr Sandbach's book, so he is obliged to examine the way the ruling class exercises power. His chapter on pressure groups and power is the best in the book. Pressure groups and lobbies have been well studied by S. E. Finer, Roy Gregory, and many others. Mr Sandbach uses some of their examples and adds some of his own, to illustrate the contrast between those who believe that pressure groups really do (though with inevitable distortion) represent a pluralist scenario of public opinion, and those who have no such illusions. The disillusioned ones regard public participation (such as recently took place in the Vale of Belvoir enquiry) as "a lever to support an economic interest".

He is right to ram home the need for reform in the procedures of public enquiries—for example, that the Dartford tunnel be armed with all the relevant data and financed to face the Goliaths with an adequate armoury. And he is right to lament the fact that pressure groups are middle class bodies, which he believes (though there is no evidence for this inference) do not speak also for the inarticulate proletariat. (Incidentally, he is plain wrong to suggest that the "lower classes"—his label, not mine—can't participate in planning inquiries because they can't afford to get away as easily as middle class people can. How many doctors and professors can take days off to attend rallies or picket lines, as their trade union comrades seem to be able to?)

Mr Sandbach has read a lot of literature about participation and he summarizes it well. But it is a pity that he didn't read more widely before condemning participation as a device which only "tends to" the powerful to consolidate their power". Has he not heard of Mr Berger Commission in Canada, who examined the proposal to put a pipeline down the Mackenzie River. The Commission held hearings in settlements, Indian villages, lumber camps, all the way up the line. Lobbies opposed to the pipeline were financed to prepare their case, the recommendation, adopted by the Canadian government, was not to approve the proposal, and one of the reasons was that it would be an affront to the religious beliefs of the Indians across whose territory the pipeline would run. This is not just an isolated example; I could quote a score of other cases, including some described by Gregory, whose book Sandbach includes in his bibliography.

How to lessen the maldistribution of power among people, both in pluralistic democracies and in totalitarian socialist republics is the most challenging problem of our time, for if the masses do not exercise power, they would lack peace, and disarmament, and an equitable distribution of the world's food supply. Mr Sandbach does useful service when he confronts us with this problem. In his last chapter, "Environmental Futures", he examines predictions based on bourgeois and on Marxist ideology. (This chapter is a pale reflection of the monumental study from the Sussex University—*World Futures: The Great Debate*, edited by Freeman and M. Jahoda (Martin Robertson, 1978)—which it is surprising not quoted among the references. It would have been encouraging to find that Marxism could explain why we now take so much trouble to protect the environment. It's not Mr Sandbach's fault that Marx is silent on this matter; I'm grateful to Mr Sandbach for asking him.)

Eric Ashby

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Western studies of Soviet science

The Social Context of Soviet Science
edited by Linda L. Lubrano and Susan Gross Solomon
Dawson, £10.00
ISBN 0 89158 460 1

At the start of the first chapter of this collection of essays, Susan Gross Solomon refers to the vitality of western studies of Soviet science. This volume itself provides ample evidence. With the exception of Loren Graham, the contributors are all members of the 1970s generation of American specialists in the field.

In her chapter Solomon charts the development of western research into Soviet science from the 1950s. Initially it was concentrated on political interaction in science. Then, with the launching of the first sputnik (suggesting that Soviet politics could not have a wholly negative effect on Soviet science) and with the beginning of de-Stalinization, other problems became fashionable, in particular the study of science policy.

Although Solomon concedes that there are still many unanswered questions in those areas which have been the major concern in recent years, she calls for attention to be paid to two neglected problems. Firstly, she would like to see a greater concentration on science itself as distinct from its environment; secondly, more study of the political influences on Soviet science. Solomon does not seek a return to the model of political intrusion of the 1950s but does feel that the writings of Zhores Medvedev challenge the accepted view of the relationship between politics and science. Perhaps there was not a great discontinuity between the years before Khrushchev's secret speech and the subsequent period of de-Stalinization – in both periods there may have been a similar mix of political pressure and influence affecting science. Solomon would like to see such a hypothesis tested.

The three essays concentrate on particular aspects of Soviet science. Diane Gustafson shows that much of the variation in performance between Soviet and American pure science can be explained by the systemic differences in the emphasis of research. He then goes on to claim that the organizational differences stem from profoundly different national attitudes to authority, uncertainty and conflict" (page 57). However, Gustafson himself seems to provide this dubious conclusion by suggesting that the Soviet Union is capable of finding another organizational system which is equally reflective of its national and political culture.

Next is Loren Graham's essay, Science in Context, considering the effects of organization on applied research. He, too, concludes that it has had a major impact on the level of applied research in the recent past. However, in comparison with Gustafson he sees fewer benefits from the organizational structure to offset its manifold disadvantages. Finally Parrott considers how the institutional changes of the 1970s have not produced any improvement, a conclusion that would be disputed by some western specialists.

Whereas Gustafson and Parrott take a broad view of Soviet science, the contributions by Mark Adams and Loren Graham are more narrowly focused. Adams asks and answers the sort of questions which are plucked out by Solomon as worthy of increased attention. He assesses the influence of ideology and organizations) structure on the work done in the biological institute founded by N. K. Kol'tsov, concluding that structure rather than ideology per se would seem to be the crucial variable" (page 159). In explaining the institute's scientific research, support is given by implication for Solomon's tentative suggestion that there may not have been a great break in 1956, that any generalization is made difficult by the role of genetics in the study of human heredity.

Graham's work and the continuing influence of Lysenko under Khrushchev, Loren Graham discusses the position of genetic engineering in the Soviet Union, where the issues surrounding developments in this field are complicated by the legacy of Lysenkoism. Nevertheless he concludes that the response to debate might not differ too much from the response in the United States. Thus, Graham seems to abide by the view that Solomon considers to be ripe for re-examination: that Soviet science differs in degree but not in kind from its non-Soviet counterpart.

The other two essays are concerned with individual social groups. Linda Lubrano reviews the survey data published on the Soviet Union on the characteristics and attitudes of scientists. Kendall Bailes looks at engineers and here we can find many parallels with recent debates in Britain. These two chapters have little new for the specialist but provide useful summaries of Soviet literature, also those with a non-specialist interest in Soviet affairs will find the bibliographical references helpful.

Taken as a whole, this volume contains a useful but rather disparate collection of essays which do not entirely reflect the editors' claim that they make a shift towards a greater emphasis on the relationships between scientific research and its social environment. Further, it is somewhat premature in view of this claim not to find any discussion of work done by scholars such as Kuhn and Merkay on the development of scientific disciplines in their social context. The book is also marred by the absence of an index and, for nearly half of Bailes's essay the footnote numbers in the text are out of phase with the sources at the end of the chapter.

Robert Lewis

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Efficient algorithms

Numerical Methods
by R. L. Broughton and A. R. D. Ramsay
Bell & Hyman, £2.20
ISBN 0 7135 1217 1

Many schools now include computer studies as part of their curriculum. As a sound knowledge of numerical methods is needed for serious scientific computing, it is appropriate that such methods are being introduced into sixth-form mathematics courses. But few texts are available at this level. There are a number of volumes claiming to be an introduction to numerical analysis, but these are mainly aimed at second-year mathematics undergraduate level or above. In addition there are several books describing numerical methods for scientists and engineers, but these are hardly always too advanced for school work.

Numerical Methods is an attractively produced little volume aimed squarely at the sixth form. Its aim is clearly stated in the preface: "It is claimed that this book presents a thorough first course in numerical methods, teaching the student to produce efficient algorithms for a wide range of problems. A large number of examples of iterative solutions are given, and there are numerous exercises to enlarge the student's experience and to help him decide the most appropriate method to use on a given problem."

The first chapter contains an account of curve sketching, and deals in detail with some elementary functions. This material is certainly valuable for those who have not met it previously, but it is somewhat unusual to find it included in a book on numerical methods.

The next chapter is concerned with the solution of non-linear equations. The problem of the location and rough estimation is considered and then various iterative methods are recommended for obtaining more accurate solutions. Newton's method is described and a useful comparison of the procedures is given. These methods are suitable for use with a programmable calculator or computer, and some flow charts are included. On page 18 the second criterion is given as "... accurate to", apparently it could be misleading, as the more accurate approximation might be used, the condition should be changed to "$x_{i+1} - x_i$ is accurate to ...".

There follows a chapter on interpolation and curve-fitting, which deals in the main with Newton's forward difference formula and Lagrange's formula. It should be borne in mind that the difference operators introduced apply only to equally spaced data, there is no mention of the numerical integration and differentiation. In a chapter on differential equations consideration is given to Euler's method, the modified Euler method and the Runge-Kutta method. There is also mention of the Taylor series method and we are given an example of its use. The book examines what one might call the "classical" numerical methods, but it does not mention Bairstow's method, an Aitken's iteration formula, and details of a predictor-corrector method.

There is a chapter on systems of linear equations, in which we find a clear account of Gaussian elimination and details of the Gauss-Seidel iteration process. The next chapter examines errors. It is pointed out that the authors define errors differently in the second chapter. Furthermore, it would have been better to have had this information earlier. The truncation error introduced by approximating the infinite trunk is mind-boggling.

We are told on page 98 that references for further reading are to be found at the end of the book, unfortunately this is not so, and here and there the normally excellent printing has blemishes. Nevertheless this is a nice little book which is good value for money.

F. D. Burgoyne

F. D. Burgoyne is lecturer in numerical analysis at King's College, London.

BOOKS

England restrained by the medieval straitjacket

The Medieval English Economy 1150-1500
by J. L. Bolton
Dent, £10.95 and £6.95
ISBN 0 460 10274 5 and 11274 0

This book provides students with a very useful survey of the medieval economy; though Mr Bolton propounds few novelties of interpretation, he summarizes a mass of specialist literature with great skill, and the result is a model of clarity and readability.

He begins with an explanation of manors and field systems, and their regional diversities; this is done succinctly and interestingly. He then examines demand, strongly emphasizing demographic factors, and shows the effects of expansion on agriculture, towns and industry in the twelfth and thirteenth centuries. The watershed of the book is the early fourteenth-century crisis, from which follow chapters on the complex combination of depression and growth in the later Middle Ages, in farming, towns and trade. The book ends with a short chapter on economic ideas. Two fifths of the book are devoted to the non-agricultural sector.

Although very much an economic history, the book does not neglect social factors. Mr Bolton rightly emphasizes the ways in which pressure exerted by lords contributed to the economic problems of the peasantry in the thirteenth century, and how the mentality of the upper classes hindered economic growth. It is also refreshing to see the Peasants' Revolt of 1381 being given the pcominence that it deserves. Mr Bolton is a useful guide through the thickets of controversy, seeing merit in diverse schools of thought, and avoiding dogmatic stands on such difficult issues as the general character of economic change in the late twelfth or early fourteenth centuries. He also deals with subjects that have been badly neglected in the past, such as the efficiency of road transport.

As with any general work dealing with a wide range of specialist knowledge, one can take issue with parts of the book. It is surely misleading, for example, to call the small landowners of the fifteenth century—a disparate group of gentry, yeomen, lawyers and merchants—a "middle class". Also the number of "places with urban characteristics" around the year 1300 is seriously underestimated at about 300, the true total being probably in excess of 600, a figure which would have better supported the argument that England was oversupplied with small towns.

Mr Bolton describes his approach as empirical, but although he presents his evidence in considerable detail, he also takes pains to provide explanations and interpretations. A persistent theme is that throughout the period the economy was overwhelmingly agrarian, undercapitalized, and lacking in "real" economic growth. This view has become widely accepted for the thirteenth century, but to apply it to the century and a half following the Black Death of 1348-49 is more controversial. This book documents in considerable detail the radical changes in English patterns of trade associated with the growth of a vigorous native cloth industry, the growing involvement of English merchants in international commerce, and the technical advances in both agriculture and industry. But in making a general assessment of the later Middle Ages, these developments are minimized, and the reader is given a pessimistic impression of the period.

Assigning "importance" or "significance" to economic trends is, of course, a subjective business, but it appears that Mr Bolton uses demanding yardsticks for measuring economic growth. He provides some interesting unpublished statistics to show that English merchants failed to take over more than 60 per cent of overseas trade even at the end of the fifteenth century, but other arguments for a backward economy do not stand up. The strictures on merchants who invested their profits in land could be applied to many periods of English history, and the upper-class disdain for "trade" was not confined to the middle ages. The estimate that only "10-15 per cent of the workforce" was occupied in industry in the late fifteenth century cannot be disproved because no contemporary occupational census is available, but the poll-tax assessors of 1380 found a much higher proportion in many parts of England, and industrial output was probably greater 120 years later.

It can be argued that in the later Middle Ages English and continental economic history began to diverge, with England set on the road to becoming the "first industrial nation". Mr Bolton's view is that only after 1500 could England escape from the medieval "straitjacket".

Christopher Dyer

Christopher Dyer is lecturer in medieval history at the University of Birmingham.

Luther's revolt

Reformation Principle and Practice: essays in honour of A. G. Dickens
edited by Peter Newman Brooks
Scolar Press, £18.50
ISBN 0 85967 579 3

Studies in the Reformation: Luther
by W. D. J. Cargill Thompson
edited by C. W. Dugmore
Athlone Press, £18.00
ISBN, 0 485 11178 X

Reformation Principle and Practice is a collection of 12 essays by established historians of the Reformation in Germany and England. The authors and subjects were chosen to "portray the life-long professional interest" of Professor A. G. Dickens, to whom this work was presented on the occasion of his seventieth birthday. Learned and readable, it is indeed a worthy tribute to the scholar and stylist widely regarded as our greatest early modernist.

The book is aptly named, relating, for the most part, to "the intellectual and social forces which got Luther's revolt off the ground". This is quoted by the editor in his elegant preface as Dickens's own definition of the central problem of the Reformation. The essays fall, very roughly, into three groups: those on ideas, and those on the "practice" in Germany and in England. Alastair Duke may be said to represent Dickens's further interest in Catholic affairs by a vastly erudite essay on why the suppression of heresy should have aroused such boiling resentment in the still Catholic society of the Spanish Netherlands. Gordon Rupp springs off with a pertinent leap for the sixteenth century in which so many princes failed to realize that "a knight—than an army is the power of an idea, whose time has come". Hillerbrand can dissect the ideas, but only peer with trembling curiosity into that metaphysical gap. Bob Scribner examines what one can see in his library and the intellectual formation of a Saxon pastor; Geoffrey Nuttall demonstrates the Christocentric nature of *The Pilgrim's Progress*, while G. R. Elton concludes a riveting analysis of what it was that Sir Thomas More really plot for, derived from the evidence of his own works.

The four complementary pieces on Germany are mutually informative on the basis mechanism of the Reformation. Scribner shows the Reformation to have been a revolt from within the Church, and builds up an fascinating if plausible silhouette of the average godly preacher. Trusty men were in great popular demand, and Christian helps us to understand this essential key response as well as the widespread eruption of educated men into church affairs and the domain of doctrine. In the cities of the Empire, these forces produced, brought great pressures to bear on municipal councils. Broadhead reveals the exact process by which the "realistic" magistrates of Augsburg gradually yielded to evangelical pressures for the sake of preserving law and order, and Midelfort shows the continuity between a Cistercian monastery in Hesse and the remarkably altruistic Protestant hospital which it became.

The eclecticism of the Reformation in England renders it almost as bewildering as its counterpart in the vast and variegated Holy Roman Empire. If any one influence can be said to have predominated, it was possibly that of the Swiss reformers, via the University of Cambridge. The editor, P. N. Brooks, contributes a piece on three archbishops who all emerged from Cambridge: Cranmer, and his successors Parker and Grindal whose task it was to enforce the English church settlement. The complex diversity, which long existed in practice, is richly illustrated by Collinson through the large parish of Cranbrook in Kent, and by Claire Cross writing about York, in which Dickens has a very special interest. The northern archdiocese sounds more like an ecclesiastical backwater in which the Elizabethan settlement was, to a great extent, harmlessly ignored for twenty years or more. Clearly the earl of Sussex was not joking when, in 1567, he asked the queen what was the religion of England because, on his forthcoming embassy to Germany, he would be expected to know.

It is inconceivable that James Cargill Thompson would not have contributed to this *Festschrift* but for his early death in 1978. Besides his profound interest in political ideas, he was, like Dickens, a specialist on the Reformation in Germany and England. Also, like Dickens, he explored the myopic insularity of British historians—not, one might add, in that field alone. In the event, it is Dickens himself who contributes a preface to this memorial collection of published articles. He and the editor, C. W. Dugmore, provide two fine tributes to a man they both regarded as a perfectionist scholar, as well as a cherished colleague and friend.

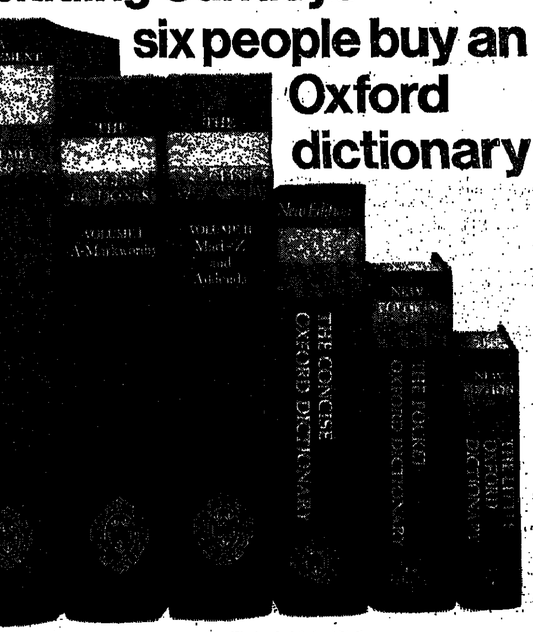
To the reader, the outstanding quality of these essays—three on Luther, and four on English topics—is their exemplary clarity, both intellectual and stylistic. The theses were not new but, in every case, there was controversy or confusion which the author elucidates by his meticulous attention to context, time, place and circumstance. Never does he overstep the evidence to urge an opinion, or to remove a friend's mote. The first chapter on Luther and the right of resistance to the Emperor, may well have the widest general appeal. It is an object lesson in the impossible folly of seeking to understand the reformer apart from his imperial background.

Both books make an important contribution to Reformation studies and should appear in every college library.

N. M. Sutherland

Dr Sutherland is lecturer in history at Bedford College, London.

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NOTICE BOARD

Noticeboard is compiled by Patricia Santinelli and Mila G...

Chairs

Professor A. Harding, reader in the University of Edinburgh, has been appointed to the chair of medieval history, University of Liverpool, in succession to Professor A. R. Myers, who will take up his appointment on October 1, 1980.

Mr Garry Phillips, senior lecturer in quantitative social science at the University of Kent at Canterbury, has been appointed to succeed Professor Conrad Leser to the chair of econometrics at Leeds University from October 1, 1980.

The personal title of professor of biochemistry at the University of Birmingham has been conferred upon John Philip Simons, at present reader of photochemistry in the department of chemistry at the same University.

Sir Samuel Curran has been appointed visiting professor in energy studies at the University of Glasgow from October 1, 1980.

Appointments

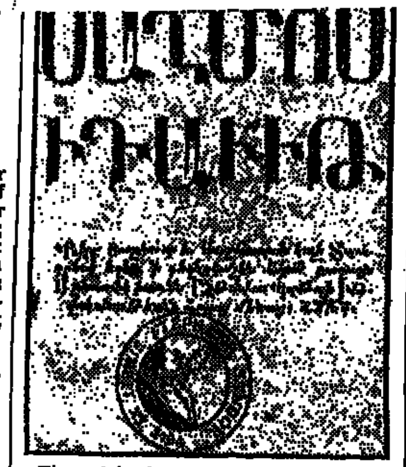
Universities

Leicester

Senior lecturer: Dr R. C. Fraser (general practice in the department of community health). Lecturers: Dr John Howard Beynon (engineering); Kenneth Malcolm Clews (economic geology); Gaynor E. Kavanagh (museum studies). Domestic bursar: T. R. Wragg (Stamford Hall). Departmental headships: Professor Trippett (chemistry); Professor Tarney (geology); Professor Warner (history); Dr R. D. L. Montague (philosophy). Acting headship: Dr D. Jones (microbiology); Dr D. P. Davies (child health); Dr Anne J. Beck (Student Health Service).

London

Director of the School of Slavonic and East European Studies: Dr Michael A. Branch.



The titlepiece of the Book of Psalms is in an exhibition of Early Armenian Painting at the British Library until December 31.

Forthcoming events

"Games and Simulations: The Real and the Ideal" the annual conference of the Society for Academic Gaming and Simulation in Education and Training is to be held at Manchester Polytechnic September 15-17. Further details can be obtained from Mike Kelly, Staff Development Unit, Manchester Polytechnic, Bracken House, Charles Street, Manchester M1 7DF.

* * *

"Development of University English Teaching", a residential workshop to develop the teaching of English and related subjects in higher education is to be held at the University of East Anglia, from September 14 to 20. Further details from Dr David Mack, Loughborough University of Technology, Loughborough, Leicestershire LE11 3TU.

* * *

"The Nationwide Provision and Use of Information", the first major conference and exhibition organized by Aslib, the Institute of Information Scientists and the Library Association is to be held at ... Sheffield from September ... Speakers include: Professor ... Saunders, of Sheffield University, "Information ... the ... Resource", Mr Maurice B. Line, British Library Lending Division, "Ignoring the user: how to ... him in spite of himself", ... Keith Joseph on "Information ... dynamic economy". Further ... on The Aslib, IIS/LA Joint Conference Organizer, 3 Belgrave Square, London SW1.

* * *

The annual two-day meeting of the Association for the Study of Medical Education is to be held at ... Hospital and Medical School, ... from September 15 to 16. On the first day topics to be considered are journals and printed materials ... learning resources. On the second ... papers ... members. Further details from ... Gyle, ASME, 150b Perth Road, ... DD1 4EA.

Open University programmes September 6 to September 12

Saturday September 6

BBC 2

7.40 The revolutions of 1848: The condition of Work: Britain after 1848 (A321; prog 10).
8.05 English urban history 1500-1780: The Early Industrial Town (A322; prog 8).
8.30 Arts foundation course: Matters of Interpretation (A101; prog 28).
8.50 Social psychology: Members of the Jury (D305; prog 14).
9.20 People and work: White Collar Workers (DE351; prog 7).
9.45 Risk: Jackson Pollock—What Kind of Risk (U201; prog 10).
10.10 Drama: "Waiting for Godot" (A307; prog 14).
11.00 The Earth's physical resources: Water Resources: A Case Study (S266; prog 10).
11.25 Genetics: Molecular Evolution (S299; prog 14).
11.50 Cognitive development: language and thinking from birth to adolescence: Design for Science Teaching (E362; prog 8).
12.15 Understanding space and time: A Note of Uncertainty (The Universe Tomorrow) (S354; prog 14).
12.40 History of architecture and design 1890-1939: The Other Tradition (A305; prog 21).
13.05 The sociological perspective: Yours for a Harvest of Souls (D283; prog ...).
13.30 Integration and normed spaces: Integration and Normed Spaces (M331; prog 8).
13.55 Art in Italy 1480-1580: Titian; Three Paintings (A352; prog 8).
14.20 Technology for Teachers: Learning Difficulties: Teaching Approaches (PET472; prog 10).
14.40 Twentieth century poetry: Philip Larkin (A306; prog 14).
15.00 Numerical computation: The Simtan Language (M351; prog 8).
15.20 Management in education: The Educators Part 3: "Countdown" (E321; prog 10).
15.40 An ageing population: Home Design (P252; prog 2).
16.00 Thought and reality: Themes in Wittgenstein's philosophy: The Self, the Will and the Ethical (A402; prog 8).
16.20 The Earth's physical resources: The Energy Budget (S266; prog 4).
16.40 Systems behaviour: Modelling Biological Systems (T241; prog 7).
17.00 The rise of modernism in music 1890-1935: From Morton to Ellington: The Rise of the Jazz Composer (A308; prog 14).
17.40 An introduction to calculus: The Examination (MS283; prog 8).

Radio Scotland and Radio Cymru areas only: Alternative Broadcasts

17.55 Understanding space and time: The Night Sky (S354; prog 7).
18.15 People and work: Work and Society (DE351; prog 18).
18.35 An introduction to psychology: Futurology (DS261; prog 16).

RADIO 3 (VHF)

6.00 Mechanics and applied calculus: Rotating Frames—Tutorial (M351; prog 7).
6.20 Social work, community work and society: From Widow to Woman? (DE206; prog 16).
6.40 Research methods in education and the social sciences: History of Research Methods (DE304; prog 16).
7.00 Patterns of inequality: Servant of the State? (D302; prog 25).
7.20 Arts foundation course: Blitz the Reformer (A101; prog 25).
7.40 Science foundation course: The Cool Dog of the Plagues (S101; prog 14).

RADIO 4 (VHF)

Not on Radio Cymru or Radio Scotland.

9.05 Music Pill.
9.15 Open Forum 29.
9.30 Physiology of cells and organisms: Decompression Sickness (S321; prog 7).
9.50 An introduction to materials: Waste Materials (T281; prog 7).
10.10 The nature of chemistry: Superheavy Elements (S304; prog 14).
11.20 Curriculum design and development: The Science Teachers (E203; prog 21).
11.40 Decision making in Britain: Britain and the Third World (D203; prog 24).
14.00 Complex analysis: Laplace Transforms (M332; prog 7).
14.20 Linear mathematics: Revision (M201; prog 16).

Radio 3 (continued) / Radio 4 (VHF)

Radio Scotland and Radio Cymru areas only: Alternative Broadcasts

23.30 Schooling and Society: French Universities on Strike (1) (E202; prog 14).
23.50 The Revolutions of 1848: An Irish Poorhouse and its District 1845-1851 (A321; prog 14).

RADIO 3 (VHF)

Alternative Broadcasts for the Radio Scotland and Radio Cymru areas only

24.00 Linear Mathematics: Revision (M201; prog 16).
00.20 Numerical Computation: The Simtan Language (M351; prog 8).
00.40 Open Forum 29.

Sunday September 7

BBC 2

7.40 Making Sense of Society: Transport and Road Research Laboratory (D101; prog 29).
8.05 Science Foundation Course: Field Geology Arran (S101; prog 28).
8.30 Mathematics Foundation Course: Modelling Cranes (M101; prog 24).
8.55 An Introduction to Materials: The Transformer Core (T281; prog 11).
9.20 Principles of Chemical Processes: Polymerisation (ST294; prog 16).
9.45 Physiology of Cells and Organisms: Buoyancy in Marine Animals (S321; prog 14).
10.10 Man-made Futures: Design and Technology: Design Project Tutorial (T262; prog 10).
10.35 Geochemistry: Geochemical History of the Earth (S2-4; prog 3).
11.00 Computer-based Information Systems: Security and Integrity (M352; prog 8).
11.25 Advisory Programme for Applicants (2): Preparing to Study with the OU.
11.50 Mechanics and Applied Calculus: Rotating Frames II—Applications (MS283; prog 14).
12.15 Systems Behaviour: A Biological System—Respiration 1 (T241; prog 15).
12.40 Instrumentation: Display and Recording (T291; prog 10).
13.05 Materials Under Stress: The Turbine Blades (2): Predicting Failure (T351; prog 14).
13.30 Control Engineering: Non-Linearities (T301; prog 8).

RADIO 3 (VHF)

6.00 Oceanography: Upwelling: El Nino (S334; prog 10).
6.20 Fundamentals of Human Geography: Policies for the Future (D204; prog 10).
6.40 Personality and Learning: Story Material from Teenage Boys (E201; prog 27).

7.00 Making Sense of Society: Social Science and Social Change (D101; prog 29).
7.20 Environmental Control and Public Health: Air Pollution and the Public Health Inspectorate (PT272; prog 14).
7.40 The Early Roman Empire and the Rise of Christianity: Pagan Mysteries and Christian Passover (A291; prog 14).

RADIO 4 (VHF)

Except for Radio Scotland 7.15-8.15 am and Radio Cymru 7.15-7.55 am only.

7.15 Genetics: Genetic Counselling (S299; prog 13).
7.35 Art in Italy 1480-1580: Palladio in Search of the Ideal Villa (A352; prog 9).
7.55 Understanding space and time: The Night Sky (S354; prog 7).
8.15 An introduction to psychology: Futurology (DS261; prog 16).
8.35 People and work: Work and Society (DE351; prog 18).
8.55 The revolutions of 1848: An Irish Poorhouse and its District 1845-1851 (A321; prog 14).
9.15 Renaissance and Reformation: English Nationalism at the Time of the Renaissance (A201; prog 30).
9.35 The digital computer: Mock TMA No. 4 (TM221; prog 14).
9.55 Schooling and society: French Universities on Strike (1) (E202; prog 14).

RADIO 3 (VHF)

24.00 Comparative politics: The Course of the Russian Revolution (D232; prog 2).
00.20 History of architecture and design 1890-1939: The MARS group and the Thirties (A305; prog 28).

Monday September 8

BBC 1

6.40 Microeconomics: Cost Benefit Analysis (D220; prog 8).
7.05 Patterns of inequality: Cuba, The Revolutionary Alternative (D302; prog 15).

BBC 2

6.40 Telecommunication systems: Teaching by Telephone. Systems (T321; prog 14).
7.05 Modelling by mathematics: First Order Planes (TM281; prog 9).
7.30 Linear mathematics: Laplace Transforms (M201; prog 20).
16.50 Research methods in education and the social sciences: Complex Modelling (DE304; prog 6).
17.15 The Enlightenment: The Paris Panthéon (A204; prog 14).
17.40 Language development: Language Opportunities (PE232; prog 10).
18.05 Mathematics foundation course: Modelling Cranes (M101; prog 24).
18.30 An introduction to materials: The Transformer Core (T281; prog 11).

RADIO 3 (VHF)

6.00 Conflict and stability in the development of modern Europe c. 1789-1970: Cold War (A309; prog 18).
6.20 Modern art from 1848 to the present: styles and social implications: The Impact of Abstract Expressionism (A351; prog 15).
6.40 The development of instruments and their music: Ionisation (A304; prog 18).
18.20 Man's religious quest: Inter-Religious Dialogue (AD208; prog 32).
18.40 Arts foundation course: The Object of Work (A101; prog 29).

RADIO 4 (VHF)

23.30 Images and information: Fossil Imaging (ST290; prog 7).
23.50 Elements of music: Recognising Structures (A241; prog 18).

RADIO 3 (VHF)

Alternative broadcasts for the Radio Scotland and Radio Cymru areas only.

24.00 Physiology of cells and organisms: Decompression Sickness (S321; prog 7).
00.20 The nature of chemistry: Superheavy Elements (S304; prog 14).
00.40 Curriculum design and development: The Science Teachers (E203; prog 21).

Tuesday September 9

BBC 1

6.40 Fundamentals of human geography: Redefining the City (D204; prog 18).
7.05 Biochemistry: Radio Isotope Techniques (S322; prog 4).
7.30 Analysis: Sequences (M231; prog 10).

BBC 2

6.40 Conflict and stability in the development of modern Europe c. 1789-1970: Images of Protest (A309; prog 8).
7.05 The handicapped person in the community: Working Together (P251; prog 10).
7.30 Numerical computation: Simulation Models (M351; prog 9).
16.50 Introduction to pure mathematics: Introduction to analysis and topology (M203; prog 28).
17.15 The Double Integral (M203; prog 19).
17.15 Environment: Rivers (S2-3; prog 18).
17.40 Computer-based information systems: Security and Integrity (M352; prog 8).
18.05 The development of instruments and their music: Ionisation (A304; prog 14).
18.30 Science foundation course: Quantum Theory: Electrons and Photons (S101; prog 26).

RADIO 3 (VHF)

6.00 Curriculum design and development: ...

The Science Teachers (E203; prog 21).
6.20 The digital computer: Mock TMA No. 4 (TM221; prog 14).
6.40 Ecology: Dutch Elm Disease (S323; prog 7).
16.20 Personality and learning: Case-Study of a Slow Learner (E201; prog 28).
18.40 The sociological perspective: Sectarian Beliefs (D283; prog 13).

RADIO 4 (VHF)

23.30 Renaissance and reformation: Popular Poetry in the Elizabethan Period—The Traditional Ballads (A201; prog 29).
23.50 The Enlightenment: Laugier and French Architectural Theory (A204; prog 29).

RADIO 3 (VHF)

Alternative broadcasts for the Radio Scotland and Radio Cymru areas only.

24.00 An introduction to materials: Waste Materials (T281; prog 7).
00.20 Complex analysis: Laplace Transforms (M332; prog 7).
00.40 Systems behaviour: Modelling Biological Systems (T241; prog 7).

Wednesday September 10

BBC 1

6.40 Curriculum design and development: A Fish in a Tank (E203; prog 14).
7.05 Reading development: The reading curriculum and the advisory role (PE233; prog 8). Reading and individual development (P534; prog 8). Resource Development (P531; prog 8).
7.30 Research methods in education and the social sciences: Complex Modelling (DE304; prog 6).

BBC 2

6.40 Introductory electronics: A Study in Design (T283; prog 8).
7.05 Physiology of cells and organisms: Circadian Rhythms (1) (S321; prog 15).
7.30 Biological bases of behaviour: Social Behaviour of Animals (SDT286; prog 15).
16.50 Biochemistry and molecular biology: Immunology 3: Antibody Genetics and Immunoregulations (S322; prog 35).
17.15 The nature of chemistry: Fast Reactor Fuel Reprocessing (S304; prog 20).
17.40 Patterns of inequality: Cuba, The Revolutionary Alternative (D302; prog 15).
18.30 Arts foundation course: A Golden Age of Work (A101; prog 29).

RADIO 3 (VHF)

6.00 Integration and normed spaces: A Review of the Course (M331; prog 8).
6.20 History of architecture and design 1890-1939: The MARS Group and the Thirties (A305; prog 28).
6.40 Drama: Collective Drama: Joint Stock and Mike Leigh (A307; prog 19).
18.20 The Enlightenment: Laugier and French Architectural Theory (A204; prog 20).
18.40 Making sense of society: Social Science and Social Change (D101; prog 29).

RADIO 4 (VHF)

23.30 Technology for teachers: Examining School Technology (PET471; prog 4).
23.50 Music Pill.

RADIO 3 (VHF)

Alternative broadcasts for the Radio Scotland and Radio Cymru areas only

24.00 The rise of modernism in music 1890-1935: From Morton to Ellington: The Rise of the Jazz Composer (A308; prog 14).
00.40 An introduction to calculus: The Examination (MS283; prog 8).

Thursday September 11

BBC 1

6.40 Cognitive development: language and thinking from birth to adolescence: Design for Science Teaching (E362; prog 8).
7.05 Renaissance and Reformation: Gloriana (A201; prog 10).
7.30 Conflict in the Family 2: Juveniles Court 2 (P253; prog 4).

BBC 2

6.40 Introduction to pure mathematics (M203; prog 30).
7.05 Introduction to Analysis and topology: Convergence (M231; prog 30).
7.30 Industrial relations: Box the Good of the Company (PT281; prog 9).
16.50 Systems performance: human factors and systems failures: Planning for Disaster (TD342; prog 14).
17.15 Drama: Waiting for Godot (A307; prog 14).
17.40 Management in education: Atkinson College—Management in Crisis (E321; prog 7).
18.05 Conflict and stability in the development of modern Europe c. 1789-1970: Images of Protest (A309; prog 8).
18.30 Making sense of society: Transport and Road Research Laboratory (D101; prog 29).

RADIO 3 (VHF)

6.00 Patterns of inequality: Servant of the State? (D302; prog 25).
6.20 Problems of philosophy: Liberty: An Imaginary Conversation between Voltaire and Rousseau (A303; prog ...).
6.40 Greece 478-336 BC: Aristotelian Way of Life (A291; prog 18).
18.20 Research methods in education and the social sciences: History of ...

Research Institutes (... 12).
18.40 Mathematics foundation course: Mathematics Foundation Maths (M101; prog 18).

RADIO 4 (VHF)

23.30 Twentieth-century poetry: Philip Larkin (A306; prog ...).
23.50 An introduction to materials: Materials (T281; prog ...).

RADIO 3 (VHF)

Alternative broadcasts for Radio Scotland and Radio Cymru areas only.

24.00 Decision making in Britain and the Third World (D203; prog 24).
00.20 An ageing population: Home Design (P252; prog 2).
00.40 The Earth's physical resources: Energy Budget (S266; prog 4).

Friday September 12

BBC 1

6.40 Oceanography: Whales and the ... (S334; prog 16).
7.05 Control engineering: Nonlinearities (T301; prog 8).
7.30 The nature of ...: Curious History of ... (S304; prog 26).

BBC 2

6.40 Modern art from 1848 to the present: styles and social implications: Art as Performance (A351; prog 10).
7.05 Geophysics: The Oceanic Crust (S2-4; prog 4).
7.30 Materials under stress: The Blades (2): Predicting Failure (T351; prog 14).
16.40 Principles of chemical processes: Polymerisation (ST294; prog 16).
17.15 The Earth's physical resources: A Case Study: Water Resources (S266; prog 10).
17.40 Computing and computers: Next? (PM951; prog 23).
18.05 Biological bases of behaviour: Behaviour of Animals (SDT286; prog 15).
18.30 Microeconomics: Cost Benefit Analysis (D220; prog 8).

RADIO 3 (VHF)

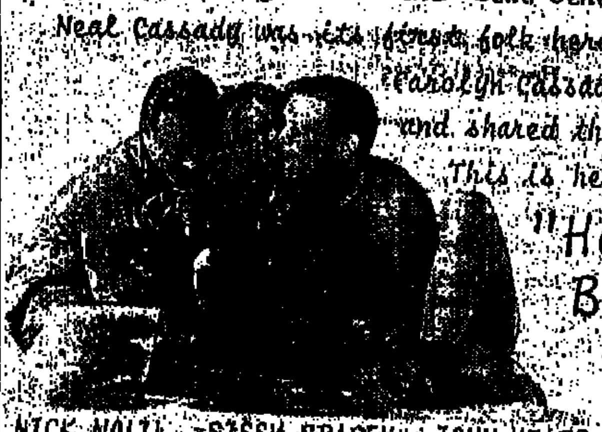
6.00 Mass communication and society: James Bond ... Ideology (DE353; prog 20).
6.20 An ageing population (P252; prog 2).
6.40 An introduction to calculus: Examination (MS283; prog 8).
18.20 Fundamentals of human geography: Policies for the Future (D204; prog 10).
18.40 Science and belief: from Copernicus to Darwin: Physics and Philosophy of Nature Romantic Period (AMST283; prog 10).

Radio Scotland and Radio Cymru: alternative broadcasts

23.30 The digital computer: Mock TMA No. 4 (TM221; prog 14).
23.50 Renaissance and reformation: Popular Poetry in the Elizabethan Period—The Traditional Ballads (A201; prog 29).
24.00 Twentieth-century poetry: Philip Larkin (A306; prog 14).
00.20 Management in education: The Educators Part 3 (E321; prog 10).
00.40 Thought and reality: Themes in Wittgenstein's philosophy: The Self, the Will and the Ethical (A402; prog 8).

* repeated programme

Jack Kerouac fathered the "Beat Generation". Neal Cassady was its finest folk hero. Carolyn Cassady loved and shared them both. This is her story.



"Heart Beat!" X

NICK NOLTE (as Neal Cassady) · SISSY SPACEK (as Carolyn Cassady) · JOHN HEARD (as Jack Kerouac)

NOW SHOWING GATE TWO CINEMA RUSSELL SQUARE Tel 837 8402 837 1177

CONFERENCE

MICRO PROCESSOR TECHNOLOGY—ITS EFFECTS ON EDUCATION AND EMPLOYMENT

A ONE-DAY OPEN CONFERENCE

Key Speakers: The Rt. Hon. Mark Carlisle, M.P. Dr. George Brosan, Director N.E. London Polytechnic.

Date/Venue: Saturday, 20th September, 1980 at Halton College, Widnes, Cheshire.

Cost: £8.50 inc. full lunch and afternoon tea.

Registration and enquiries to: YMCA Special Programmes, ... Manchester ...

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Universities

AUSTRALIA

Applications are invited for the following posts, for which applications close on the dates shown. SALARIES (unless otherwise stated) are as follows: Professor $A37,151; Senior Lecturer $A23,801-$A27,741; Lecturer $A17,730-$A23,303. Further details and application procedure may be obtained from The Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, unless otherwise stated.

The University of New South Wales, Sydney

LECTURER

School of Psychology

High academic qualifications are required and preference may be given to an applicant with training and experience in experimental approaches either to clinical psychology or to individual differences. Prospective applicants with other interests are also invited to apply.

The University is contemplating appointment either for a fixed term of three years or, under certain circumstances, on the basis of a contract containing provision for conversion to tenure.

3 October, 1980.

The University of Sydney

LECTURER IN MUSIC

Applications are invited for this post in field of Ethnomusicology, which will be available for filling from 28 March, 1981. Department's programme in Ethnomusicology currently comprises postgraduate courses in Japanese music and undergraduate courses in Japanese, Australian Aboriginal, Indonesian and Indian music, and Ethnomusicological Method. Department is also involved in presentation of and research into music of migrant communities in Australia and appointee expected to organize and direct concerts in this area.

The position may be filled either on a tenured basis or, in the first instance, for a probationary period of three years with the possibility of tenure being given during or shortly after that period.

19 September, 1980.

The University of Tasmania

LECTURER OR SENIOR LECTURER IN MATHEMATICS

Department of Mathematics

Applicants should have a Ph.D., or equivalent experience, in either Applied Statistics or Operations Research. The appointee will be expected to teach undergraduate courses in Statistics and Operations Research, supervise Honours, Masters and Ph.D. theses and will be involved in some consulting work.

31 October, 1980.

LECTURER IN ART THEORY

From January, 1981, the Tasmanian School of Art will become a Faculty of the University and will form part of the University's Centre for the Arts, which is planned to be located at Sullivan's Cove, Hobart.

Candidates should have a background in art history and/or art theory, and a major interest in the study of 20th-century art, craft and design, since this area will form a major theory component in the School's degree and diploma programmes. A further specialist area would be an advantage. The position will be offered on a three-year contract basis with the alternative possibility of a Visiting Lectureship of about one year's duration.

26 September, 1980.

Monash University Melbourne

CHAIR OF EDUCATION

A Chair in Psychology applied to Education will fall vacant in the Faculty of Education when Professor Ronald Taft, F.A.S.S.A., retires in February, 1981. The Faculty is non-departmentalized, and there are five other professors. All teaching is at graduate diploma or higher degree level; the Faculty has the equivalent of 1,200 full-time students of whom about 130 are undertaking psychological studies. Research and teaching cover most fields of psychology normally relevant to education. Applicants with a variety of backgrounds in psychology will be welcomed. Particulars about the chair and the Faculty may be obtained from the Dean in the University. Superannuation, travelling and removal allowance. Temporary housing assistance. The Council reserves the right to make no appointment or to appoint by invitation at any stage.

1 November, 1980.

THE UNIVERSITY OF NEW ENGLAND AUSTRALIA

PROFESSOR IN ACCOUNTING & FINANCIAL MANAGEMENT

Applications are invited for appointment to a second Chair in the Department of Accounting and Financial Management. The appointee will be expected to serve as Head of Department for five years in the first instance.

The Department of Accounting and Financial Management is one of five departments within the Faculty of Economic Studies and offers both undergraduate and postgraduate courses in Accounting, Finance, Systems, Small Business Management and Legal Studies.

The current professorial salary is $A35,864 per annum. The University will pay travel expenses for the appointee and family to Armidale together with reasonable removal expenses. Other benefits include superannuation (F.S.S.U. pattern or N.S.W. State Superannuation Scheme) and assistance in obtaining finance for building or buying a home. The appointee will be eligible to apply for study leave with appropriate travel grants.

Intending applicants should obtain further information from the Staff Officer, University of New England, Armidale, New South Wales, 2351 Australia, with whom applications, which should include names and addresses of three referees, and stating the Position No. 561, should be lodged before 15 September, 1980.

Applicants in the United Kingdom, Europe and America should forward an additional copy, by the same date, to the Secretary General, Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF from whom further information can also be obtained.

BURSAR

CLARE HALL, CAMBRIDGE

Clare Hall, a graduate college of the University of Cambridge, proposes to appoint a Bursar, responsible to the Governing Body for the financial and administrative affairs of the College. The post may be part of full time, and residential or non-residential, and stipend and conditions would be determined according to the circumstances. A suitably qualified person would be eligible for election to an Official Fellowship. The starting date is negotiable but would ideally be not later than March 1981.

Candidates, who should preferably be graduates, should have sound experience of administration and financial management, though not necessarily in an educational establishment.

Applications, including details of age, education, career and present salary, should be sent to arrive by 19th September 1980, to the President, Clare Hall, Cambridge CB3 9AL. Further particulars may be obtained from the same address.

UNIVERSITY OF NAIROBI

KENYA

Applications are invited for the post of

LECTURER IN DEPARTMENT OF ECONOMICS

Applicants should have a Ph.D. or equivalent and have teaching and research capability at university level. Preference will be given to those with specialisation in one or more of the following: Economic Statistics, Monetary Economics, Public Finance, Development Economics. Salary scale. K£2,016-K£3,312 p.a. (K£1 equals £1.15 sterling): The British Government is unlikely to provide salary supplementation or associated benefits. F.S.S.U. Non-contributory medical scheme; subsidised housing or housing allowance; family passages.

Detailed applications (2 copies), including a curriculum vitae and naming 3 referees, should be sent to the Registrar, University of Nairobi, P.O. Box 30197, Nairobi, Kenya, not later than 1 October 1980. Applicants resident in U.K. should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details are available from either address.

UNIVERSITY OF THE SOUTH PACIFIC

Applications are invited for the post of

SENIOR LECTURER/ LECTURER IN AGRICULTURAL ECONOMICS (Post 80/72)

This post relates to the area of agricultural macroeconomics, or the economics of agriculture as an industry. Qualification should be a masters degree or higher with specialization in agricultural economics, with several years of teaching and research experiences in this general area preferably in developing countries. Salary scales: Senior Lecturer F$13,257-15,806 p.a., Lecturer F$9,168-12,832 p.a. (£1 sterling = F$1.92). The University has a small number of positions within its establishment for which the British Government provides supplementation payments (BESS). The present post carries no such benefits and is offered on local terms and conditions only. Gratuity; superannuation; appointment allowance; low rental part-furnished accommodation. 3-year renewable contract. Detailed applications (2 copies) including a curriculum vitae and naming 3 referees should be sent to the Dean, Alafua Campus, University of the South Pacific, P.O. Box 890, Alafua, Apia, Western Samoa to arrive not later than 26 September, 1980. Applicants resident in U.K. should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details are available from either address.

ABERYSTWYTH

THE UNIVERSITY COLLEGE OF WALES

DEPARTMENT OF AGRICULTURAL BOTANY

Applications are invited for the post of:

RESEARCH ASSISTANT

To work on an A.R.C. funded project to investigate the genetic control of chromosome pairing in Lolium hybrids. The project will involve both the study of chromosome behaviour at meiosis and an analysis of the segregation of marker genes in species hybrids.

The appointment is for a period of three years and applicants should hold a good honours degree in a Biological subject. The successful candidate will be expected to enrol for a higher degree.

Salary will be within Range 1B for Research and Analogous Staff, £4,402 to £5,062 per annum (interim scale subject to review).

Application forms and further particulars are obtainable from The Registrar (Staffing Office), The University College of Wales, Old College, King Street, Aberystwyth, SY23 2AX. Closing date for applications, Friday, September 12, 1980.

DURHAM

THE UNIVERSITY

MICROPROCESSOR CENTRE

Applications are invited for the permanent posts of DEPUTY DIRECTOR and MICROPROCESSOR ENGINEER in the University's new centre for microprocessor technology. The more senior post of Deputy Director will carry responsibility for the day to day management of the centre. Applicants for both posts should have substantial relevant experience in software and/or hardware aspects of microprocessor technology. The Centre will have its own well-equipped laboratory with technical and secretarial support and will provide support for departments and courses in microprocessor applications.

Initial salary in the range £8,427 to £12,864 (Deputy Director Grade II or III) and £6,062 to £10,484 (Microprocessor Engineer—Grade IA or II), plus superannuation.

Applications (three copies) naming three referees should be sent by September 29, 1980, to the Registrar and Secretary, Science Laboratories, South Road, Durham DH1 3LE, from whom further particulars may be obtained.

ASTON IN BIRMINGHAM

THE UNIVERSITY

MANAGEMENT CENTRE

ECONOMICS, ECONOMETRICS STATISTICS AND MARKETING SUBJECT GROUP

SENIOR LECTURER AND LECTURER IN MARKETING

The successful applicants will be expected to contribute to the Undergraduate and Postgraduate teaching programmes in Marketing and to undertake Post-experience teaching in his or her speciality, as well as participating in the administrative activities of the Centre. The post of lecturer may be offered as a two-year contract in the first instance.

Salary:

Senior Lecturer, £10,142 to £12,864 per annum (appointments are normally made to the first point of the scale).

Lecturer, commencing salary will be within the range £5,062 to £7,746 per annum on a scale rising by annual increments to £10,484 per annum.

Salaries are currently under review.

Application forms and further details may be obtained from the Staff Officer (quoting reference 441/186), University of Aston in Birmingham, Gosta Green, Birmingham B4 7ET (telephone 021 359 3611 ext. 201). Closing date for the receipt of applications is September 19, 1980.

BATH

THE UNIVERSITY

Applications are invited for the post of temporary LECTURER in ECONOMICS within the Political Economy Group. The successful candidate will be required to assist in the teaching of economic analysis in the first and second years and it would also be useful if he or she had some knowledge of the economics of planned economies.

The appointment will run from January 1981 for nine months only.

Application forms available from the Personnel Officer, University of Bath, Bath BA2 7AY. Ref. 80/198. Closing date for applications 24th September 1980.

CARDIFF

UNIVERSITY COLLEGE

LECTURER IN FOOD AND NUTRITION

Applications are invited for the above post in the SCHOOL OF HOME ECONOMICS. Applicants should be graduates in the fields of either Home Economics (Food Studies) or Food and Nutrition, and should preferably hold a higher degree in Nutrition. Salary range: £5,062 to £10,484 (under review). Duties to commence January 2, 1981 or earlier if it can be arranged.

Applications (2 copies), together with the names and addresses of two referees, should be forwarded to the Vice-Principal (Administration) and Registrar, University College, P.O. Box 78, Cardiff CF1 1XL, from whom further details may be obtained. Closing date September 22, 1980. Ref. 2002.

NEWCASTLE UPON TYNE

THE UNIVERSITY

THE MEDICAL SCHOOL

HEALTH CARE RESEARCH UNIT

TEMPORARY LECTURESHIP IN HEALTH ECONOMICS

Applications are invited for a temporary LECTURESHIP in HEALTH ECONOMICS in the Health Care Research Unit. Applicants should be graduates with an interest in the allocation of resources in the health services and, preferably, should have research experience.

The appointment will be at an appropriate point on the Non-Medical Lecturers' Scale, £5,062 to £10,484 per annum, according to age, qualifications and experience.

The appointment will be tenable for the period during which the unit is financed by the Department of Health and Social Security: the present contract terminates on March 31, 1986.

The unit undertakes multi-disciplinary research into primary health care and into the care of children and is directed by Professor D. J. Newell, Professor of Medical Statistics.

Further particulars may be obtained from the Senior Assistant Registrar (F.P.), The University, 6 Kensington Terrace, Newcastle upon Tyne NE1 7RU, with whom applications (three copies), together with the names and addresses of three referees, should be lodged not later than September 17, 1980. Please quote reference TIHES.

DURHAM

THE UNIVERSITY

SENIOR DEMONSTRATOR

Applications are invited for the post of Senior Demonstrator in Electrical/Electronic Engineering with the Department of Engineering Science tenable for three years from as soon as possible. The successful candidate will be expected to organise and participate in the running of the electrical laboratories which include experiments in electronics and control engineering. Opportunities will also be available for undergraduate teaching and project supervision. Applicants should have a research interest in one or more of the following fields: digital and analogue electronics, computer aided design, power system analysis and control, control engineering, electrical machines, or microprocessor systems.

Starting salary will be in the range of £4,402 to £6,062 plus superannuation and depending upon qualifications will be in the National Grade 1A or 1B.

Applications (three copies) naming three referees should be sent by 19 September 1980 to the Registrar and Secretary, Science Laboratories, South Road, Durham DH1 3LE, from whom further particulars may be obtained.

LONDON

QUEEN ELIZABETH COLLEGE Kensington

(University of London)

PHYSICS DEPARTMENT

RESEARCH ASSISTANT FOR OPTICAL PHASE CONJUGATION

Applications are invited for a RESEARCH ASSISTANTSHIP supported by the Science Research Council and tenable for up to three years. The post is available immediately and requires experience corresponding to a Ph.D. degree in physical optoelectronics, or a related field.

The work will involve the physics of non-linear optical materials in order to produce, by phase conjugation, the conjugate optical wave to an arbitrary input and is directed towards the characterisation and the compression—reduced redundancy—of images. The work is primarily experimental but some theoretical development could be involved.

Salary Scale: £5,062 to £6,725 per annum plus London allowance of £740 per annum. Applications with the names of two referees, should be sent to Professor B. E. Burge, Department of Physics, Queen Elizabeth College, Campden Hill Road, Kensington, London, W8 7AH.

WALES

UNIVERSITY COLLEGE CARDIFF

LECTURER IN COMMUNITY STUDIES

Applications are invited for the above post in the SCHOOL of HOME ECONOMICS commencing January 2, 1981, or as soon as possible thereafter. Candidates should, preferably, be graduates in Sociology or a related subject. Salary range: £5,062 to £10,484 (new scales available shortly).

Applications (two copies), together with the names and addresses of two referees, should be forwarded to the Vice-Principal (Administration) and Registrar, University College, PO Box 78, Cardiff CF1 1XL, from whom further particulars may be obtained. Closing date: September 30, 1980. Reference 2007.

WARWICK

THE UNIVERSITY

DEPARTMENT OF PHILOSOPHY

Applications are invited for a lecturing post in the Department of Philosophy, tenable from October 1, 1980 to March 31, 1981. The person appointed will be required to teach an undergraduate course in Philosophical Logic. An interest in the Philosophy of Science could also be an advantage.

Salary for the six month period will be in the region of £3,000.

Application forms and further details from the Academic Registrar, University of Warwick, Coventry CV4 7AL to whom applications should be returned as soon as possible. Please quote Ref. No: 3/A/80/1.

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Universities continued

LONDON

ROYAL HOLLOWAY COLLEGE (University of London)

LECTURESHIP IN ENGLISH

Applications are invited for a lectureship in English from January 1, 1981. Candidates should have a special interest in the Seventeenth and in Literary Criticism.

Appointment will be made on the bar mit not always the third point (£4,737–£5,220) of the salary scale £5,052 to £10,494 (under review) plus £740 London allowance.

Please apply for further details to Mrs. D. J. Gobb, Personnel Officer, Royal Holloway College, Egham Hill, Egham, Surrey TW20 0EX. The closing date for receipt of applications is October 1, 1980.

SHEFFIELD THE UNIVERSITY

DIVISION OF ECONOMIC STUDIES

Applications are invited from men and women graduates with a good honours degree in a relevant subject for a Junior Research Fellowship in Organisational Behaviour within the Business Studies Section of the Division of Economic Studies. The research fellow would normally be expected to register for a Ph.D. Tenable for three years. Initial salary in Range £3,402 to £5,589 a year. Informal enquiries to George Hague of the Division.

Particulars from the Registrar and Secretary, the University, Sheffield S10 2TN, to whom applications (five copies) should be sent by September 10, 1980. Quote reference number R502/DI.

Polytechnics

The Polytechnic of North London

HEADS OF DEPARTMENTS
(Burnham Grade VI)

Department of Language and Literature

Comprises subject divisions of English, French, German, Hispanic Studies, Classical Civilization offering full-time undergraduate degrees and part-time MAs in Modern Fiction and in Modern Drama. An extensive development of evening-only work is planned.

School of Librarianship

Offers a full range of undergraduate and post-graduate degrees and professional courses in one of the largest departments in the country.

Department of Mathematics, Statistics and Computing

Offers a full range of HND and undergraduate degrees, also full-time and part-time postgraduate courses in Statistics and Computing.

Each department has more than 400 students and promotes a significant amount of staff research and consultancy. The Head of Department is responsible within the overall policies of the Polytechnic for the maintenance of high standards in teaching, the development of courses, the management of resources and all aspects of staff development. Applicants should demonstrate appropriate experience at a senior level and a substantial academic and/or professional reputation.

It is hoped to hold interviews by end-October so that the person appointed can begin work from January, 1981.

Salary Scale: £11,205-£12,357 plus £609 London Allowance (subject to formal approval).

Application form and further details available from The Secretary and Clerk to the Court of Governors, The Polytechnic of North London, Holloway Road, London N7 8DB. Telephone 607 2789, Extn. 2011. Closing date for applications will be October 6, 1980.

Strathclyde Department of Education

GLASGOW COLLEGE of TECHNOLOGY

The Glasgow College of Technology, a major polytechnic institution of higher education, invites applications for the following posts:

LECTURERS

MECHANICAL AND ELECTRONIC ENGINEERING (Ref. L/62). Qualifications should include graduate experience or research preferably with a good honours degree or equivalent post-graduate level. A specialism in sound within these categories would be welcomed. Applicants with experience in Control Engineering, Mechanical Vibrations, Electronic Instrumentation, Digital Techniques or Microprocessors would be considered.

MECHANICAL AND CIVIL ENGINEERING (Ref. L/63). Applicants should have post-graduate experience in one or more of the following fields: Structural Mechanics or Structures, Soil Mechanics, Hydraulics or Hydrology.

MANAGEMENT STUDIES. (Ref. L/64). The successful applicant will be involved in the teaching and development of business policy and related subjects within the existing range of post-experience and undergraduate courses. Applicants should be graduates with a relevant professional qualification. Managerial experience is essential.

SALARIES

SENIOR LECTURER £9,144–£10,176 (UAB)
LECTURER 'A' £5,190–£8,178 (UAB)

Details on the salary scale will be given for relevant posts.

Details of conditions and further particulars can be obtained from the Glasgow College of Technology, Cowcaddens Road, Glasgow G4 0BA, to whom completed applications should be returned not later than 10 days after the appearance of this advertisement.

EDWARD MILLER, Director of Education.

ULSTER POLYTECHNIC

Faculty of Arts

LECTURER II/SENIOR LECTURER INTERIOR/EXHIBITION DESIGNER

A creative designer particularly interested in the visual/tactile qualities of environments and graphic presentation is required to make a substantial contribution to the B.A. Hons. Interior Design/Furniture Design Course.

Candidates should have some experience as designers and hold a M. Des. R.C.A., B.A. Hons., Degree in Architecture, A.R.I.B.A. or equivalent qualification and professional experience.

Faculty of Business and Management

LECTURER II/SENIOR LECTURER IN OPERATIONS/PRODUCTION MANAGEMENT

The person appointed will be required to teach Production, Decision Making, and related subjects in a range of courses within the School and as required throughout the Polytechnic. Candidates for the post should have appropriate academic qualifications preferably to degree level, and industrial experience. Experience of research, consultancy and/or previous teaching would prove an additional advantage.

LECTURER II–TOURISM (2 year appointment)

The person to be appointed will be expected to contribute to teaching, research and curriculum development in the area of Tourism and should also be able to teach at least one of the other subjects offered within the School.

Applicants should preferably have a postgraduate qualification in Tourism. Industrial experience would be an advantage.

Faculty of Education

PRINCIPAL LECTURER IN PHYSICAL EDUCATION AND SPORT STUDIES

Applications are invited for the post of Principal Lecturer in Physical Education and Sports Studies with specific responsibility for course development and research.

Faculty of Science

LECTURER II/SENIOR LECTURER–FOOD SCIENCE

This post is in the School of Life Sciences and the person appointed will be required to teach Catering Science up to honours degree level and also contribute to the research and administration of the School of Life Sciences.

Applicants should have a good Honours degree in Food or Catering Science and experience in teaching and research.

Faculty of Technology

LECTURER II/SENIOR LECTURER IN ELECTRICAL ENGINEERING

Duties will include teaching, laboratory development and course planning. Active participation in research will be encouraged.

Applicants should have a specialism in electric power systems engineering and hold a good degree, preferably with honours. Relevant teaching, industrial, research or practical experience in computer application will be an advantage.

Principal Lecturer £10,509 – £11,712/£13,345
Salary Scales: Senior Lecturer £8,952 – £10,539/£11,295
Lecturer II £6,012 – £9,702

The Polytechnic is a direct grant institution with an Independent Board of Governors. It opened in 1971 and has a student population of some 7,500. It has extensive new purpose-built accommodation, including 830 residential places on the 114-acre campus overlooking the sea at Jordanstown, a pleasant and quiet residential area. There is a scheme of assistance with removal.

Further particulars and application forms which must be returned by 22nd September 1980 may be obtained by telephoning Whitehead (0232) 65151, Ext. 2243, or by writing to: The Establishment Officer, Ulster Polytechnic, Shore Road, Newtownabbey, Co. Antrim BT37 0QB.

ROBERT GORDON'S INSTITUTE OF TECHNOLOGY, ABERDEEN

SCHOOL OF HOTEL AND INSTITUTIONAL ADMINISTRATION

Senior Lecturer
to teach Applied Marketing and/or Manpower Administration and/or Applied Management Studies and to act as Senior Industrial Tutor for Catering and Hotelkeeping courses and to teach in HND and HCIMA Part 3 and contribute to proposed BA course in Catering Administration.

Relevant teaching and industrial experience desirable.

Salary in range £10,417-£13,163 per annum (under review)

Assistance with removal expenses.

Details from Secretary, Robert Gordon's Institute of Technology, Schoolhill, Aberdeen AB9 1FR. (0224 574511).

ROBERT GORDON'S INSTITUTE OF TECHNOLOGY, ABERDEEN

SCHOOL OF MECHANICAL AND OFFSHORE ENGINEERING

LECTURERS
Mechanical Engineering Honours Graduate required with qualifications or experience in Materials Technology, Corrosion, Manufacture or Mechanics of Materials and appropriate Industrial or research experience to develop aspects of Offshore Engineering in Industrial Plant.

Salary range £5,905-£11,207 (under review).

Assistance with removal expenses.

Details from: Secretary, Robert Gordon's Institute of Technology, Schoolhill, ABERDEEN AB9 1FR.

PAISLEY COLLEGE

Department of Mathematics and Computing

Lecturer 'A'
Salary : £5,905-£11,207 (interim award)

Applications are invited for a Lectureship in an appropriate area of mathematical sciences from candidates who have research/industrial experience and who are interested in teaching at graduate/post graduate levels. Suitable specialisms include fundamental modelling; operational research, process control or applications with a strong interest in an allied field will be considered.

Application forms and further particulars are available from the Personnel Officer, Paisley College of Technology, High Street, Paisley PA1 2BE (Tel. 041-887 1241, Ext. 235), to whom completed forms should be returned by Monday, 15th September, 1980.

PAISLEY COLLEGE

DEPARTMENT OF ECONOMICS AND MANAGEMENT

SENIOR LECTURESHIPS– TWO POSTS
Salary Scale £10,417 to £13,163 (interim award)

Applicants should have a good honours degree in [illegible] or professional qualification with appropriate industrial experience. The successful candidates will be expected to make a substantial contribution to departmental research.

For the first of these posts we are ideally seeking someone capable of providing academic leadership in the area of Marketing which is a major option in the B.A. Business Economics degree with a present intake in excess of fifty. Alternatively, someone with interests in Managerial Economics or Management Science might also be acceptable.

The person appointed to the second post will be expected to play a major part in the development of a new Finance Option in the above degree. Whilst professional qualifications would be advantageous, suitable qualified economists or others wishing to specialise in this area would be acceptable.

Application forms and further particulars are available from the Personnel Officer, Paisley College of Technology, High Street, Paisley PA1 2BE (tel. 041-887 1241 ext. 235) to whom completed forms should be returned by 15th September, 1980.

(Informal enquiries may be made to Professor P. L. Sloane, ext. 201).

LIVERPOOL

THE POLYTECHNIC

DEPARTMENT OF SPORT AND RECREATION STUDIES

LECTURER II/SENIOR LECTURER (Grade IV)

Applications are invited for the above post for which a vacancy exists as a consequence of re-organisation.

The department offers courses in Health and Paramedical Studies.

Salary scale: Head of Department, Grade IV, £11,852-£13,345.

Further particulars and application forms are available from the Staffing Officer, Personnel Department, Peter Jones Building, Byrom Street, Liverpool L3 3AF. Applications should be returned within 21 days of the appearance of this advertisement.

PAISLEY COLLEGE

Department of Chemical Engineering

LECTURER II/SENIOR LECTURER

Required to [illegible] courses for the S[illegible] H.N.D. in Chemical Engineering.

Salary: £5,220 [illegible] p.a. inc. (under review)

Application [illegible] further particulars may be obtained from the Assistant Director [illegible] The Polytechnic, PONTYPRIDD, Mid Glamorgan (0443) [illegible] ext. 2021.

Closing date: September, 1980.

OXFORD

THE POLYTECHNIC

DEPARTMENT OF MATHEMATICS

LECTURER

General Vacancies

LONDON

UNIVERSITY OF LONDON

SERVICES MANAGER
(Deputy to Administrator)

Applications are invited from candidates for this post which involves responsibility for the bar, shop and other services in the University of London Union buildings in Bloomsbury.

The Union is extensively remodelling and developing its services and offers an excellent position for candidates with proven experience of bar, shop or other appropriate trading operations. Previous commercial or professional student union experience will be considered an advantage, although not essential.

The post is on a salary within the range £8,502-£9,720 on the A.S.S.C. Clerical and Miscellaneous Staffs Scales plus £1,404-£1,755 on the 1B grade for Research and Analogous Staff (Research Assistant) (under review).

Application forms and further particulars may be obtained from the Secretary, The University, Leeds LS2 9JT, quoting reference number 10/80/DA. Closing date for applications September 19, 1980.

LIVERPOOL

THE UNIVERSITY

DEPARTMENT OF ELECTRICAL ENGINEERING AND ELECTRONICS

Applications are invited for the post of SENIOR RESEARCH ASSISTANT to work on arc discharges in gas blast switches. The post is concerned with investigations of the interaction of axial high current (100kA) arcs with supersonic gas flows. The work is being performed in close collaboration with Industry and the C.E.G.B. and with financial support from the S.R.C.

Candidates should have experience of either experimental or theoretical work and a Ph.D. degree. Previous experience of aerodynamics, gas discharges or switchgear engineering desirable but not essential.

Initial salary on the scale £5,052-£6,399 per annum, further particulars and application forms may be obtained from The Registrar, The University, P.O. Box 147, Liverpool L69 3BX, by whom completed forms should be received not later than 26th September 1980. Quote Ref. RV/6860/THEN.

NEWCASTLE UPON TYNE

THE UNIVERSITY

RESEARCH ASSOCIATE

PROPELLER NOISE MEASUREMENT FEASIBILITY STUDY

Applications are invited from suitably qualified graduates preferably with research experience, for work on the above project, which will involve a general study of the problems of marine propeller noise and its measurement on model scale, with particular reference to the recalculation facility in the Department of Naval Architecture and Shipbuilding. The project is part of the S.R.C. Marine Technology Research Programme at Newcastle. The appointment will be for 12 months from October 1980, or as soon as possible thereafter.

Salary will be at an appropriate point on the range IA scale effective from April 1, 1980, £5,052 to £6,789 per annum, according to age, qualifications and experience.

Further particulars may be obtained from the Senior Assistant Registrar (P.F.), The University, 6 Kensington Terrace, Newcastle upon Tyne NE1 7RU, with whom applications (two copies) together with names and addresses of three referees, should be lodged not later than September 12, 1980.

UMIST

DEPARTMENT OF MECHANICAL ENGINEERING

RESEARCH ASSISTANT

Applications are invited for a post, tenable for 2 years, in a SERC supported project on "Electrical Power Conditioning". Applicants should be graduates in Electrical Engineering or Physics with a good honours degree and preferably a Ph.D. Experience in power electronics and/or electrical machines would be an advantage.

Salary will be on the scale £5,052-£6,399 per annum, according to age and experience.

Further particulars and application forms may be obtained from the Personnel Officer, UMIST, P.O. Box 88, Manchester M60 1QD, to whom completed forms should be returned by September 15th, 1980.

LEEDS

THE UNIVERSITY

DEPARTMENT OF TEXTILE INDUSTRIES

Applications are invited for a post of RESEARCH FELLOW or RESEARCH ASSISTANT in the above Department to work on an S.R.C. supported project to investigate the interaction of fibre, yarn and fabric properties during and after the formation of woven and knitted fabrics. The appointment will be made for a fixed period of up to 3 years.

Candidates should have a good honours degree in physics, mechanical engineering or materials science and preferably experience with experience of or an interest in applying knowledge and techniques from these fields to practical problems. It is envisaged that the successful candidate may be permitted to apply for registration for a higher degree.

Salary within the range £5,052-£6,720 on the IA grade for Research and Analogous Staff (Research Assistant) (under review).

Application forms and further particulars may be obtained from the Secretary, The University, Leeds LS2 9JT, quoting reference number 10/80/DA. Closing date for applications September 19, 1980.

LIVERPOOL

THE UNIVERSITY

DEPARTMENT OF ELECTRICAL ENGINEERING AND ELECTRONICS

Applications are invited for the post of SENIOR RESEARCH ASSISTANT to work on arc discharges in gas blast switches. The post is concerned with investigations of the interaction of axial high current (100kA) arcs with supersonic gas flows. The work is being performed in close collaboration with Industry and the C.E.G.B. and with financial support from the S.R.C.

Candidates should have experience of either experimental or theoretical work and a Ph.D. degree. Previous experience of aerodynamics, gas discharges or switchgear engineering desirable but not essential.

Initial salary on the scale £5,052-£6,399 per annum, further particulars and application forms may be obtained from The Registrar, The University, P.O. Box 147, Liverpool L69 3BX, by whom completed forms should be received not later than 26th September 1980. Quote Ref. RV/6860/THEN.

Holidays and Accommodation

ARCHAEOLOGY IN ISRAEL. Dig[illegible] and sampling. A holiday with a difference! From £214 land only. Brochure: Expedition Dept. 36 Great Russell St., WC1. 01-636 1262.

Personal

IMMEDIATE ADVANCES
£100 to £20,000.
No security needed
REGIONAL TRUST LTD.
31 Dover St.,
London W1X 4RT.
Phone: 01-491 2934

Research Posts

TRINITY AND ALL SAINTS' COLLEGE
(Affiliated with the University of Leeds)

Trinity and All Saints' College, an independent Institution affiliated with the University of Leeds, provides studies leading to B.A. (Collegiate), B.Sc. (Collegiate), and B.Ed. Honours Degrees of the University.

RESEARCH IN RECREATION STUDIES

NALBSC Research Officer

Required for a fixed-term period of two years from October, 1980, or as soon as possible after that date, a research officer to investigate women's perceptions of the benefits of Bingo. The successful candidate will have a degree or higher degree in the social sciences or leisure studies, and will have some knowledge/experience of interview and questionnaire techniques.

A wardenship may be available for the successful applicant.

Salary will be at an appropriate point between £4,000 and £5,500 p.a.

Further particulars and application forms, which should be returned not later than two weeks after the appearance of this advertisement, are obtainable from:

THE REGISTRAR,
Trinity and All Saints' College,
Brownberrie Lane, Horsforth, Leeds LS18 5HD.

UMIST

RESEARCH ASSISTANT IN RHEOLOGY/POLYMER CHEMISTRY

REF. CR/172

Applications are invited for the above post to undertake a research programme on the rheological properties of polymeric systems in relation to their processability. The work will involve the use of a variety of rheometers and the development of new techniques for the measurement of melt elasticity. Candidates should have a good honours degree in chemistry, preferably with a Ph.D. in a relevant subject. Experience in polymer rheology would be an advantage but not essential.

The appointment, which is for 2 years in the first instance, will be on the RA 1A scale (£5,052-£6,399 per annum) according to age and experience.

Applications, quoting the above reference number, should be sent to the Personnel Officer, UMIST, P.O. Box 88, Manchester M60 1QD, to whom they should be returned by September 19th, 1980.

UMIST

RESEARCH ASSISTANT

RSE: EEE/170/CJ

A RESEARCH ASSISTANT is required in the DEPARTMENT OF ELECTRICAL ENGINEERING AND ELECTRONICS to continue the development of algorithms and computer software for power system analysis. The work will involve the application of modern control theory and optimisation techniques to the solution of problems in power system operation, control and planning. Experience in one or more of these areas would be an advantage.

The appointment, which is for 2 years in the first instance, will be on the RA 1A scale (£5,052-£6,399 per annum) according to age and experience.

Applications, quoting the above reference number, should be sent to the Personnel Officer, UMIST, P.O. Box 88, Manchester M60 1QD, to whom they should be returned by September 19th, 1980.

Administration

BIRMINGHAM

THE UNIVERSITY

ADMINISTRATIVE OFFICER

Applications are invited for an ADMINISTRATIVE OFFICER in the DEPARTMENT OF ELECTRONIC AND ELECTRICAL ENGINEERING. The post will be responsible for departmental administration, including the secretarial staff, aspects of security and safety, the control of research contracts and grants, etc.

Candidates should provide evidence of their experience of administrative work and of any work involving persons in the clerical and technical grades.

Salary range £4,405 to £5,760 per annum (under review) plus superannuation. Further particulars may be obtained from the Assistant Secretary, The University, Birmingham 15, to whom applications should be returned by September 20th, 1980.

LEICESTER

THE POLYTECHNIC

ADMINISTRATIVE ASSISTANT (EXAMINATIONS)

£5,990 to £7,476 per annum (under review)

Required in the Academic Section of the Polytechnic Administration to join a section concerned with organisation and co-ordination of examination procedures and servicing of certain sub-committees of the Academic Board. Relevant administrative experience desirable. Ideal opportunity for young graduate wishing to establish a career in higher education administration.

Application form and further particulars available from Staffing Officer, Leicester Polytechnic, P.O. Box 143, Leicester LE1 9BH (tel. 20833 ext. 251/311, Ext. 2503/1).

LONDON N7

THE POLYTECHNIC OF NORTH LONDON

FACULTY OF ECONOMIC AND ADMINISTRATIVE STUDIES

DEPARTMENT OF ACCOUNTING AND ADMINISTRATIVE STUDIES

LECTURER (Grade III)/SENIOR LECTURER in Accounting to teach on the CNAA honours degree courses in Accounting and Associate Studies and the Association of Certified Accountants courses. Preference will be given to applicants able to teach financial management.

Applicants should possess a good honours degree or a higher degree in accounting. A professional accounting qualification would be an advantage.

Salary Scales: Senior Lecturer £7,101 to £8,454 (plus £9,039 plus £609 London Allowance. Lecturer (Grade II) £4,581 to £7,794 plus £609 London Allowance (subject to formal approval).

Staff at the top of the Lecturer (Grade II) Scale can expect progression to the Senior Lecturer Scale subject to satisfying an efficiency requirement.

Application form and further particulars can be obtained from the Establishment Officer, The Polytechnic of North London, Holloway Road, N7 8DB.

Closing date: 14 days from the appearance of this advertisement.

SUNDERLAND

THE POLYTECHNIC

CAREERS ADVISORY OFFICER

Salary scale: P.O.I.D. £7,287 to £8,097 (under review).

Applications are invited from Graduates of any subject for the post of Careers Advisory Officer to head the Careers Advisory Service at Sunderland Polytechnic.

The Service provides careers counselling, advice and an information service at all stages in the Polytechnic career. It liaises with employers and provides facilities for recruitment on campus.

Previous relevant employment is essential and experience in vocational guidance will be an advantage.

Further application forms and further particulars may be obtained from the Personnel Officer, Sunderland Polytechnic, Priestman Tower, Priestman Road, Sunderland SR2 8HE. Closing date September 19th 1980.

Colleges of Higher Education

Hull College of Higher Education

CENTRE FOR TRADE UNION STUDIES

Applications are invited for the post of:

Lecturer in Trade Union Studies

To join a small team of specialist staff in this established Centre. Applicants must be qualified in a relevant discipline and possess industrial trade union experience as well as an ability to work with mature students. Course development/research experience would be an advantage.

Salary Scale: Lecturer Grade II £5,616-£9,702

Application forms and further details are available from

The Personnel Office, Hull College of Higher Education,

Queens Gardens, Hull HU1 3DH
Tel: 224121
Ext. 258/282

LIVERPOOL

THE CITY OF LIVERPOOL COLLEGE OF HIGHER EDUCATION

Liverpool Road, Prescot, Merseyside L34 3LN
Tel: 051-289-6020

ASSISTANT PRINCIPAL (ACADEMIC STUDIES) HEAD OF SCIENCE (GRADE VI)

Applications are invited for this post. Applicants should possess good academic qualifications and be experienced in senior academic responsibility in Higher Education. Industrial/commercial experience desirable but not essential.

The successful candidate will be responsible to the Principal for academic planning and development.

The appointment will commence as soon as possible.

Salary: Head of Department Grade IV £12,852-£13,479.

Application forms and further details can be obtained from the Principal to whom completed application forms should be returned not later than Wednesday, September 17, 1980.

CANTERBURY
Christ Church College of Higher Education

Required from 1 October, 1980, or as soon as possible afterwards:

Temporary Lecturer in MOVEMENT STUDIES

for one term or one year to teach either Aesthetics, Philosophical Perspectives or the Social/Psychological aspects of the subject. A willingness to teach gymnastics would be desirable.

Salary: Lecturer II/Senior Lecturer £4,806-£8,871 p.a. (under review).

Temporary Lecturer in HEALTH EDUCATION

(½ days per week for two years).

Salary pro-rata on the above scale.

The college offers BA, BEd and BSc degrees, PGCE, advanced Diplomas and Higher Degrees in Education.

Letters of application should be sent to Mrs Jean Long, Principal's Secretary, as soon as possible.

Roehampton Institute
Digby Stuart
Froebel
Southlands
Whitelands

Degree courses offered by the Roehampton Institute are in combined studies leading, at present, to BA, BEd, BH or BSc degrees of the University of London.

LECTURER II IN EDUCATION

Required as soon as possible for a fixed-term appointment for ONE YEAR, based at Froebel Institute College.

Applicants should have interest and expertise in the areas of Developmental Psychology and Child Development, and have teaching experience within the First Years of Schooling age-range. Assistance with practical teaching supervision will be required.

Salary: Burnham FE Scale (£4,851 to £7,794, plus London Allowance £609), under review.

Application forms and further particulars from:—

R. A. Fennell, Assistant Secretary, Roehampton Institute of Higher Education, Richardson Building, Digby Stuart College, Roehampton Lane, London SW15 6PH.

Closing date for receipt of applications Monday, 22 September, 1980.

36,000 reasons for using the THES classified pages . . .

A survey conducted by NOP Market Research Ltd. shows that an average issue of the THES is read by 36,000 academics at universities, polytechnics and colleges in England and Wales.

In addition, 57% of those readers always or frequently look at job advertisements which might suit them irrespective of how settled they are in their current position. If you have a vacancy to fill, make sure you choose The THES. It could save you a lot of time, effort and money.

Gail Lorraine Williams
Classified Advertisement Department on 01-837 1234 Ext. 875

THE TIMES HIGHER EDUCATION SUPPLEMENT

Colleges of Education

STRANMILLIS COLLEGE BELFAST

PRINCIPAL: JAMES POMFRET, M.A., B.Sc., M.Ed.

Stranmillis College provides courses of initial training for students who are preparing to teach in nursery, primary and secondary schools through the B.Ed. Degree (3 and 4 years) and the Graduate Certificate in Education (1 year) of the Queen's University and in-service courses for teachers. The College is non-denominational: there is no religious bar.

The College is pleasantly situated in an attractive wooded estate of some 45 acres, in a quiet residential neighbourhood on the southern outskirts of the City of Belfast. New building projects to the value of £21 million have been completed in recent years.

HEAD OF MATHEMATICS DEPARTMENT

Desirable qualifications include a good honours degree, a professional certificate or diploma, experience of teaching, and experience of teacher training.

In addition to the general and honours degree courses for students offering Mathematics as a main or subsidiary subject, all students follow professional courses in the subject.

The College is well equipped with a range of learning resources, including its own television studio, two computer terminals (linked to the Queen's University Computer) and microprocessors.

The appointment will date from January 1, 1981, on the retirement of the present holder.

Salary: Head of Department Grade IV: £10,386 to £11,643 p.a. from September 1, 1980; with the additional increase from April 1, 1980, still under negotiation.

Assistance with removal expenses from outside Northern Ireland.

Further information about the College and the appointment, and a form of application, may be obtained from

THE SECRETARY,
STRANMILLIS COLLEGE
BELFAST BT9 5DY.

Applications should be received not later than Friday, September 19, 1980.

Overseas

Translators
Brussels or Luxembourg

The Commission of the European Communities is organising an open competition, based on tests, to constitute a reserve of translators of Dutch, English, French, German and Italian.

Candidates should have a perfect command of one of these languages and a very extensive knowledge of two other languages as specified below with the following restrictions:-

Candidates translating into:

(i) Dutch or German must offer French or Greek and English
(ii) English must offer French or Greek and German
(iii) French must offer German or Greek and English
(iv) Italian must offer English or Greek and German

Candidates must be nationals of one of the Member states of the Communities, aged no more than 32 and have:-

(1) a university degree in modern languages together with a further qualification in a discipline relevant to Commission work (i.e. law, economics, science) or have at least one year's post-university experience as a translator.

OR

(2) a university degree in a subject other than languages and have at least one year's professional post-university experience requiring a very good knowledge of languages.

Full details and obligatory application form contained in the Official Journal of the European Communities can be obtained from:

Information Office of the European Communities,
20 Kensington Palace Gardens,
London W8 4QQ.
4 Cathedral Road, Cardiff CF1 9SG.
7 Alva Street, Edinburgh EH2 4PH.
Windsor House, 9-15 Bedford Street,
Belfast BT2 7EG.

Please quote reference: COM/LA/315
Closing date for receipt of completed applications: 15th October 1980.

The Commission of the European Communities

Science 3

Physicist
$19,197-$21,208 (Australian)

Telecom Australia invites applications from men and women for the above position in its Research Department, at the National Headquarters, Melbourne, Australia.

Telecom Australia is responsible for the provision, maintenance and operation of telecommunications services to best meet the social, industrial and commercial needs of the Australian people. It is required to make its services available throughout Australia as far as is reasonably practicable. Telecom Australia employs in excess of 87,000 staff.

The successful applicant will be required to research the fields of solid state materials and devices; this will include the preparation and characterisation of semi-conducting materials, the study of their optical and surface properties and the development of devices having optical or microwave applications. It is expected that much of the work will be centred on a recently acquired Varian 360 MBE Machine.

Qualifications equivalent to a degree or diploma in science with a major in physics from an Australian University or College of Advanced Education, essential. A Ph.D. with strong post-doctoral achievement in experimental physics or materials science, desirable. Experience in some branch of surface science or solid-state device development would be an advantage, but applicants with a proven record in other areas are urged to apply.

Conditions of employment include permanent appointment, 4 weeks recreation leave, cumulative sick leave of 2 weeks full pay and half pay per year and a contributory Superannuation Scheme.

Appointment will be subject to the successful applicant obtaining permanent residency status in Australia if not already obtained.

Fares to Australia of the successful applicant, together with their family, where appropriate, will be borne by Telecom Australia. Assistance with initial settling in expenses in Australia, will be negotiated, dependent on the relevant qualifications of the applicant.

Written applications quoting reference number 0904/RTT-134 must reach Australia by Friday, 12 September 1980.

Further enquiries and the written application should be directed to:

Telecom Australia

The Chief General Manager
Telecom Australia
GPO Box 1883
Melbourne Vic.
AUSTRALIA 3001

THE LADY DAVIS FELLOWSHIP TRUST
P.O. BOX 1255, JERUSALEM, ISRAEL

FELLOWSHIPS FOR STUDY AND/OR RESEARCH AT GRADUATE OR POST-DOCTORAL LEVELS AND VISITING PROFESSORSHIPS

in 1981-82

at the Hebrew University of Jerusalem and at the Technion-Israel Institute of Technology, Haifa

GRADUATE AND POST-DOCTORAL FELLOWSHIPS

Eligibility: Lady Davis Fellows will be selected on the basis of demonstrated excellence in their studies, promise of distinction in their chosen fields of specialisation and qualities of mind, intellect and character.

Post-doctoral candidates shall have completed their doctoral dissertation before arrival in Israel.

The Graduate and Post-doctoral Fellowships are tenable for a period of one year. They may be renewed for a second year and in special circumstances extended to a third year.

The grant is intended to defray the cost of the Fellow's travel and tuition fees and to meet reasonable living expenses.

Application: Graduate candidates may apply during their senior academic year after they have undertaken study in a graduate school. Post-doctoral candidates may apply at an early stage of their professional career (not later than three years after completion of their doctoral dissertation).

Graduate and Post-doctoral candidates (including Israelis abroad) may obtain application forms from the Lady Davis Fellowship Trust at the above address, indicate the category of Fellowship for which they are applying, and the field of study. Completed applications must reach the office of the Trust not later than December 31, 1980.

VISITING PROFESSORSHIPS

These Fellowships are intended for candidates with the rank of Full or Associate Professor, preferably with tenure. They are tenable for periods from one trimester (or semester) to a full academic year.

Application Forms may be obtained from the Lady Davis Fellowship Trust at the above address. Completed application forms must reach the office of the Trust not later than December 1, 1980.

NATIONAL UNIVERSITY OF SINGAPORE
FACULTY OF DENTISTRY

Applications are invited for teaching appointments, ranging from Lectureships to Associate Professorships, in the Departments of Operative Dentistry, Oral Surgery and Prosthetic Dentistry. Preference will be given to candidates who are able to teach Periodontics or Orthodontics and who possess relevant higher professional qualifications and teaching experience.

Gross annual emoluments range as follows:

Lectureship:	$22,576 - 44,918
Senior Lectureship:	$36,026 - 67,205
Associate Professorship:	$49,414 - 76,026

The point of entry is dependent upon the candidate's qualifications and experience.

For staff appointed on normal contract, emplacement into the provident establishment will be considered after two 2-year contracts. Leave and medical benefits are provided. Under the University's Provident Fund Scheme, the staff member contributes at the present rate of 18% of his salary subject to a maximum of $4,500 per annum and the University contributes 24% of his monthly salary. In addition when he leaves Singapore/Malaysia (permanently) after completing his/her a "settling-in allowance" of $$1,000 - 2,000 depending on rank. Subsidised housing at rentals ranging from $$100 - 360 a month, passage assistance and baggage allowance for transportation of personal effects to Singapore.

Candidates should write to: The Registrar,
National University of Singapore,
Kent Ridge,
Singapore 0511.

giving full particulars of their qualifications and experience, and the names and addresses of three referees.

REMINDER

Copy for classified advertisements in the T.H.E.S. should arrive not later than 10.00 a.m. on Monday preceding the date of publication

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All advertisements are subject to the conditions of Acceptance of Times Newspapers Ltd. copies of which are available on request.

Please Note

The deadline for Classified Advertisement Copy in the THES is 10.00 a.m. every Monday

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Universities continued

UNIVERSITY OF THE WEST INDIES
TRINIDAD

Applications are invited for the following posts:—

MATHEMATICS: Senior Lecturer/Lecturer and Lecturer/Assistant Lecturer in Statistics.

Assistant Lecturer in Computer Science with experience in teaching and research in Data Base Management Systems, Programming Language or Computational Methods.

PHYSICS: Senior Lecturer/Lecturer preferably specialising in Optics including Infrared Optics and Thin Films, or in High Energy Nuclear Physics, including Plasmas with expertise in the interaction of radiation with materials.

CHEMICAL ENGINEERING: Senior Lecturer/Lecturer.

MECHANICAL ENGINEERING: Senior Lecturer/Lecturer in Strength of Materials, Mechanics of Machines, Engineering Design.

CIVIL ENGINEERING: Lecturer/Assistant Lecturer specialising in Environmental and/or Water Resources Engineering.

BIOCHEMISTRY: Lecturer/Assistant Lecturer specialising in Nutrition, Chemical Microbiology, Plant Biochemistry or Natural Products.

LIVESTOCK SCIENCE: Research Fellow/Junior Research Fellow with a first degree in Animal Science and postgraduate qualifications and experience in Mineral Nutrition of Livestock, Animal or Livestock Physiology or Forage Utilisation by Livestock.

Salary scales (1980/81): Senior Lecturer TT$38,616-49,092 p.a.; Lecturer/Research Fellow TT$29,784-43,752 p.a. Assistant Lecturer/Junior Research Fellow TT$24,156-26,484 p.a. (£1 sterling=TT$5.68). F.S.S.U. Unfurnished accommodation or housing allowance. Family passages. Study and Travel Grant.

Detailed applications (two copies), including a curriculum vitae and naming three referees, should be sent as soon as possible to the Secretary, University of the West Indies, St. Augustine, Trinidad. Applicants resident in UK should also send one copy to Inter-University Council, 90/91 Tottenham Court Road, London, W1P 0DT. Further details are available from either address.

THE UNIVERSITY OF NEW ENGLAND
AUSTRALIA
DEPARTMENT OF DRAMA

TENURED LECTURER

The appointee will be expected to conduct lectures, tutorials and workshops in Drama and Theatre Techniques. Applicants should be well qualified in practical and academic aspects of Drama. Experience at primary and/or secondary teaching levels and of tertiary level training for Drama Specialists given preference. Appointee will also be expected to give evidence of, ability to teach Drama to external students and to promote Theatre programmes in schools and community.

Appointee to commence 1st February, 1981.
SALARY RANGE: $A17,736-$A23,303 per annum.
CLOSING DATE: 30 September, 1980.
POSITION NO.: 574.

Applications, including the names and addresses of three referees and stating the Position No. should be sent to the Staff Officer, The University of New England, Armidale, New South Wales, 2351, prior to the closing date.

Applicants in the United Kingdom, Europe and America should forward a copy of their applications to the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF, from whom conditions of appointment and application forms can be obtained.

UNIVERSITY OF THE SOUTH PACIFIC

Applications are invited for the post of READER IN SOCIOLOGY (Ref 80/73) (£9,769 Readership is at present the highest academic position in Sociology within the University) applicants should have broad interests in the academic aspects of sociology. Preference will be given to those with specialisations in the following fields: Pacific societies and cultures, sociology of development, political sociology, family and kinship, sociology of education, race and ethnic relations. The appointee would ordinarily be required to undertake administrative responsibility for the Sociology discipline, but the arrangements may be varied in particular circumstances.

Salary scales: Lecturer F$(6,120-7,812-8,616) (£1 sterling=F$1.61). The University has a small number of positions within its establishment, for which Australian Government provided superannuation payments (SBS) at present 20% applies no such benefits are offered on local terms and conditions (only Gratuity + superannuation contributions + repatriation allowance). Low-cost family furnished accommodation is available on contract. Outright removal allowance (12 copies), including a curriculum vitae and naming 3 referees should be sent to the Registrar, University of the South Pacific, P.O. Box 1168, Suva, Fiji, to arrive not later than 10 October 1980. Applicants resident in U.K. should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details are available from either address.

UNIVERSITY OF PAPUA NEW GUINEA

Applications are invited for the post of SENIOR LECTURER/LECTURER IN DEPARTMENT OF MATHEMATICS. Appointee will be expected to be involved in teaching classes of pre-medical students at first year level, undergraduate classes, and to provide basis for postgraduate research. Present interests within the Department include algebra, analysis, stability, number theory, statistics, operational research and mathematical education. Preference will be given to applicants with research interests in operational research and/or statistics and/or computing science but applications will be welcomed from those with interests in any branch of Mathematics.

Salaries: Senior Lecturer K(16,610-18,340 plus gratuity), Lecturer K(14,660 p.a. plus gratuity, K1 sterling equals K1.57). 3-year contract. Support for approved research; rent-free accommodation; family passages; baggage allowance; leave fares after 18 months service; education subsidies; salary continuation scheme to cover extended illness or disability. Applicants who wish to arrange secondment from their home institutions will be welcomed. Detailed applications (2 copies), including a curriculum vitae, naming 3 referees and a recent small photograph should be sent to the Assistant Secretary, Box 4630, University P.O., Papua New Guinea, to arrive not later than 20 September 1980. Applicants resident in U.K. should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details are available from either address.

UNIVERSITY OF PAPUA NEW GUINEA

GOROKA TEACHERS' COLLEGE

Applications are invited for the post of

TUTOR IN HOME ECONOMICS

Appointee should be a qualified Home Economics teacher with experience in a developing country. Home Economics is taught in the broad areas of Food, Clothing, Children and Housing, and an ability to relate coursework to local conditions is essential. The College, which has approximately 880 students, is situated on an independent campus in the Eastern Highlands, and is a constituent part of the University. It is responsible for the education of secondary teachers for Papua New Guinea and other Pacific Nations. The College conducts courses which lead to the award of the University's Diploma of Secondary Teaching. The appointment will take effect from 1 January 1981 and will be for 18 months. Salary: K10,890 p.a. plus gratuity. (£1 sterling equals K1.57). Support for approved research; rent-free accommodation; family passages; baggage allowance; leave fares after 18 months service; education subsidies; salary continuation scheme for extended illness or disability. Applicants wishing to arrange secondment from their home institutions will be welcomed. Detailed applications (2 copies), including a curriculum vitae, a recent photograph and naming 3 referees, should be sent to the Assistant Secretary, Box 4620, University P.O., Papua New Guinea, to arrive not later than 1 October, 1980. Applicants resident in U.K. should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details are available from either address.

BIRMINGHAM
THE UNIVERSITY

FACULTY OF SCIENCE AND ENGINEERING

HANSON CHAIR OF METALLURGY AND HEADSHIP OF THE DEPARTMENT OF INDUSTRIAL METALLURGY

Applications are invited for the HANSON CHAIR OF METALLURGY AND HEADSHIP of the Department of Industrial Metallurgy which will become vacant from January 1981 on the retirement of Professor D. V. Wilson.

Salary in the professorial range, plus superannuation; further particulars available from the Registrar, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom 13 copies of applications (one from overseas applicants) naming three referees should be sent by September 20, 1980.

UNIVERSITY OF NAIROBI—KENYA

Applications are invited for the following posts in DEPARTMENT OF MECHANICAL ENGINEERING.—

2 SENIOR LECTURERS

Candidates should hold a Ph.D. or equivalent with at least three years (or an M.Sc. with at least five years) relevant experience in teaching and research. They should be capable of initiating research. Industrial experience is desirable.

LECTURER

Applicants should hold an M.Sc. or equivalent, plus a minimum of two years relevant experience in teaching, research or industry. Preference will be given to those who are specialists in one or more of the following: Mechanics of Machines, Design, Drawing, Production Engineering, Fluid Mechanics.

Salary scales. Senior Lecturer KE2,988—3,984 p.a. Lecturer KE2,016-3,312 p.a. (KE1 equal £1.15 sterling). The British Government is unlikely to provide salary supplementation, and associated benefits. F.S.S.U. Non - contributory medical scheme; subsidised housing or housing allowance; family passages. Detailed applications (6 copies), including a curriculum vitae and naming 3 referees, should be sent to the Registrar, University of Nairobi, P.O. Box 30197, Nairobi, Kenya, to arrive no later than 1 October, 1980. Applicants resident in U.K. should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details are available from either address.

UNIVERSITY OF EAST ANGLIA
Norwich

Applications are invited for a

TEMPORARY LECTURESHIP IN ENGLISH LITERATURE

in the School of English and American Studies tenable from 1 January to 30 June, 1981. Candidates will be required, in particular, to teach Shakespeare and either the 19th/20th century novel or 19th/20th century poetry. Salary within the range £5,052 to £6,399 (under review) plus USS benefits.

Applications (one copy only) giving full particulars of age, qualifications and experience, together with the names and addresses of three persons to whom reference may be made, should be lodged with the Establishment Officer, University of East Anglia, Norwich NR4 7TJ (telephone 0603 56161 ext. 2126) from whom further particulars may be obtained, not later, than 6th October, 1980. No forms of application are issued. In naming three referees you are particularly requested to give only the names of those who can immediately be approached.

University of London

CHAIR OF ANAESTHESIA AT ST. MARY'S HOSPITAL MEDICAL SCHOOL

The Senate invite applications for the above Chair. Applications (10 copies) should be submitted to the Academic Registrar (THES), University of London, Malet Street, London WC1E 7HU, from whom further particulars should first be obtained. Closing date 22 October, 1980.

UNIVERSITY OF HONG KONG

CHAIR OF COMPUTER SCIENCE

Applications are invited from suitably qualified candidates for the newly-established Chair of Computer Science (and Director of Computer Studies) in the Centre of Computer Studies and Applications.

Annual salary (superannuable) (under review) will be within the professional range and not less than HK$156,180. (£1 equals HK$11.50 approx.)

At current rates, salaries tax will not exceed 15 per cent of gross income. Housing at a rental of 7½ per cent of salary, education allowance, leave and medical benefits are provided.

Further particulars and application forms may be obtained from the Secretary General, Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF, or from the Recruitment Section, Secretary's Office, University of Hong Kong, Hong Kong.

The closing date for applications is 15 October, 1980.

Southampton THE UNIVERSITY

DEPARTMENT OF PHYSICS

Applications are invited for the post of

Lecturer

in the Department of Physics. Candidates should have research experience in the theory of condensed matter.

Salary scale £5,052-£10,494 per annum. The initial salary will depend on qualifications and experience.

Further particulars may be obtained from Mrs. E. C. P. Beare, Staffing Department, University of Southampton, Highfield, Southampton SO9 5NH, to whom applications (seven copies from U.K. applicants) should be sent not later than 29 September, 1980, quoting reference 1807/A.

Previous applicants need not reapply as their applications will be considered automatically.

Papua New Guinea Institute of Applied Social and Economic Research

SEEKS SIX ANTHROPOLOGISTS

or other social scientists with field experience in Papua New Guinea to carry out areas of previous research to study reproductive decision - making within the family, value of children, and related issues as part of a co-ordinated comparative study. Air fares and modest field allowance, must be available for 18 weeks in P.N.G. during 1981.

Send vita and names of 3 referees to Director, IASER, P.O. Box 5854, Boroko, Papua New Guinea, by January 1, 1981.

Papua New Guinea Institute of Applied Social and Economic Research

seeks a

SOCIAL/CULTURAL ANTHROPOLOGIST

or other social scientist (doctoral level or equivalent) to coordinate a research project dealing with family decision-making as it affects fertility. Responsibilities include design of research protocol, administration of 10-12 field workers, synthesis and editorial work. Previous Papua New Guinea experience highly desirable, as is commitment to applied research which can be used to formulate population policy and programmes.

Eighteen-month contract beginning January 1, 1981, or soonest with annual salary approximately K20,000 at most favourable rates plus lump sum payment of 24% of earnings on completion of contract. Free housing, air fare, and some moving expenses.

Send vita and request three referees to write directly by November 15, 1980, to Director, IASER, P.O. Box 5854, Boroko, Papua New Guinea.

BIRMINGHAM
THE UNIVERSITY

FACULTY OF SCIENCE AND ENGINEERING

CHAIR AND HEADSHIP OF THE DEPARTMENT OF STATISTICS

Applications are invited for the CHAIR and HEADSHIP of the Department of Statistics which becomes vacant on the retirement of Professor H. E. Daniels, F.R.S.

Salary in the professorial range, plus superannuation; further particulars available from the Registrar, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom 13 copies of applications (one from overseas applicants) naming three referees should be sent by September 20, 1980.

CAMBRIDGE

CAMBRIDGE COLLEGES (Groups A and B)

RESEARCH FELLOWSHIPS COMPETITION 1980-81.

Girton, Churchill, Kings, Jesus, Newnham, Trinity Hall (Group A) and Queens', Corpus Christi, Emmanuel and Homerton (Group B) invite competition. Application forms by October 30.

Details and application forms are now available from the Secretary, Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF.

EDINBURGH
HERIOT-WATT UNIVERSITY

DEPARTMENT OF ELECTRICAL & ELECTRONIC ENGINEERING

LECTURER

Applications for the above post are invited from graduates in electrical engineering. Preference will be given to those with interests in digital communications or digital processing.

The appointment will be for three years from January 1981 or as soon as possible thereafter and the salary scale is £5,052 to £10,494 per annum (under review).

Application forms and further particulars can be obtained from the Staff Officer, Heriot-Watt University, Edinburgh EH14 4AS, quoting reference No. 33/80.

LOUGHBOROUGH UNIVERSITY OF TECHNOLOGY

CAREERS ADVISER

(part-time)

The University Careers Service has a vacancy for a Careers Adviser. Candidates should be graduates with successful experience in industry or any major area of graduate employment. There is a marginal preference for a scientific or technological background, but the wide and ability to find students are paramount requirements. Applicants have a variety of backgrounds.

This appointment is roughly half-time, the arrangements for which are negotiable. Salary pro-rata based upon the full-time scale of Careers Officer, £6,402-£9,769 (under review). It is hoped to appoint in the lower half of the scale.

Postcard requests for further particulars, quoting ref. 98/33/80, to Paul Hickinson, Establishment Officer.

Loughborough — *Leicestershire*

ABERDEEN
THE UNIVERSITY
PRINCIPAL

The Secretary of State for Scotland invites applications and nominations for appointment to the office of Principal of the University of Aberdeen, which will become vacant on the retirement of the present holder (Sir Fraser Noble).

A note of the conditions governing the appointment may be had on application to the Secretary of State for Scotland, New St. Andrew's House, Edinburgh EH1 3TG, to whom all inquiries should be made and suggestions relating to the appointment should be sent by September 30, 1980.

CARDIFF
UNIVERSITY COLLEGE

THREE LECTURESHIPS

Applications are invited for two LECTURESHIPS and one TEMPORARY LECTURESHIP (the latter appointment to the Department of STRUCTURAL ENGINEERING. The successful applicants will be required to give one or more of the following: structural engineering, hydraulics, construction management, soil mechanics, engineering mechanics, water engineering, transportation and coastal engineering. Salary range £5,052 to £10,494 per annum (under review). Initial salaries dependent on qualifications and experience. Assistance with removal expenses will be considered where appropriate.

Applications (two copies) together with the names and addresses of two referees should be forwarded to the Vice-Principal (Administration), University College, Cardiff CF1 1XL, by 7th October, 1980. Further particulars may be obtained from the Secretary, C.F.H.E.M., 3 Hanover Street, London W1M 7AD, to whom applications should be sent as soon as possible.

LONDON

ROYAL FREE HOSPITAL SCHOOL OF MEDICINE

LECTURER (PART-TIME) IN MEDICAL SOCIOLOGY

Applications are invited for the post of LECTURER (PART-TIME) IN MEDICAL SOCIOLOGY in the Unit of Epidemiology and Social Medicine. The successful applicant will be required to undertake teaching and research in the field of medical sociology. Applications are welcomed from candidates interested in teaching medical students and undertaking research into medical topics.

Applications (five copies) together with the names and addresses of two referees should be forwarded to the Secretary, Royal Free Hospital School of Medicine, Pond Street, London NW3 2QG, from whom further particulars are available. Closing date 3rd September 1980.

UNIVERSITY OF PAPUA NEW GUINEA

Applications are invited for the post of LANGUAGE CO-ORDINATOR (Lecturer Grade 1/2), DIPLOMA IN EDUCATIONAL STUDIES to co-ordinate the English Language component of the Diploma of Educational Studies courses in Lahara (the Summer Session from late November to mid-January). The appointee will also teach Service English courses in First Semester, especially to Diploma students taking 1st Year Law courses as part of their Land Administration or Magisterial studies. He/she will be expected to take annual leave in July-August. The Diploma in Educational Studies caters for approximately 100 mature age students through in-service work and Lahara sessions. Separate language courses are run for the Tok Pisin and Primary streams which involve teachers who have worked in Papua New Guinea Community Schools and Teacher Training Colleges. Candidates should have postgraduate qualifications in Applied Linguistics or English for Special Purposes with experience in teaching English as a Second Language in developing countries. Experience in correspondence course writing and writing teaching materials in Language and study skills would be an added advantage.

Salaries: Lecturer Grade 2 K14,660 p.a. plus gratuity. Lecturer Grade 1 K16,610 p.a. plus gratuity. (£1 sterling equals K1.57). 3-year contract. Support for approved research; rent-free accommodation; family passages; baggage allowances; leave fares after 18 months service; education subsidies; salary continuation scheme to cover extended illness or disability. Applicants who wish to arrange secondment from their home institutions will be welcomed. Detailed applications (2 copies), including a curriculum vitae, naming 3 referees and a recent small photograph should be sent to the Assistant Secretary, Box 4630, University P.O., Papua New Guinea, to arrive not later than 26 September 1980. Applicants resident in U.K. should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details are available from either address.

UNIVERSITY OF PAPUA NEW GUINEA

Applications are invited for the post of SENIOR LECTURER/LECTURER IN DEPARTMENT OF MATHEMATICS. Appointee will be expected to be involved in teaching classes of pre-medical students at first year level, undergraduate classes, and to provide basis for postgraduate research. Present interests within the Department include algebra, analysis, stability, number theory, statistics, operational research and mathematical education. Preference will be given to applicants with research interests in operational research and/or statistics and/or computing science but applications will be welcomed from those with interests in any branch of Mathematics.

Salaries: Senior Lecturer K(16,610-18,340 plus gratuity), Lecturer K(14,660 p.a. plus gratuity, K1 sterling equals K1.57). 3-year contract. Support for approved research; rent-free accommodation; family passages; baggage allowance; leave fares after 18 months service; education subsidies; salary continuation scheme to cover extended illness or disability. Detailed applications (2 copies), including a curriculum vitae, naming 3 referees and a recent small photograph should be sent to the Assistant Secretary, Box 4630, University P.O., Papua New Guinea, to arrive not later than 20 September, 1980. Applicants resident in U.K. should also send 1 copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details are available from either address.

REMINDER

Copy for classified advertisements in the T.H.E.S. should arrive not later than 10.00 a.m. on Monday preceding the date of publication

Universities continued

HONG KONG
THE UNIVERSITY
SENIOR LECTURER/HEAD OF DEPARTMENT
MECHANICAL ENGINEERING
(Re-advertisement)

Applications are invited for the post of SENIOR LECTURER in MECHANICAL ENGINEERING, which may be filled at Lecturer level in the case of a less well qualified applicant, in the field of Engineering Design.

Annual salaries (superannuable) under review) are: Senior Lecturer HK$25,440 to 4,710 to HK$30,660 by 4,590 to HK$47,040; Lecturer, HK$17,460 to 3,740 to HK$79,980 HAR HK$40,980 by 4,130 to HK$49,240 by 3,749 to HK$57,740 (£1 equals HK$11.50 approximately). Starting salary will depend upon qualifications and experience.

At current rates, salaries are not exceed 25 per cent of gross income, though up to 3 tenths or 7½ per cent of salary, education allowances, leave and medical benefits are overplus.

Further particulars and application forms may be obtained from the Association of Commonwealth Universities (Ref. A), 36 Gordon Square, London WC1H 0PF, or from the Recruitment Section, Secretary's Office, University of Hong Kong, Hong Kong.

The closing date for applications is 31 October, 1980.

JOHANNESBURG
UNIVERSITY OF THE WITWATERSRAND
DEPARTMENT OF ENGLISH
ASSISTANT OR JUNIOR LECTURER

Applications are invited from ordinarily qualified persons for a permanent appointment each. Commencing salaries for appointment to the above post.

Salaries will be within the range Assistant Lecturer, R7,570 to R10,700 per annum; Lecturer, R9,350 to R12,500 per annum (1 equals R1.70 approximately).

The initial point on the scale of appointment will be determined according to the qualifications and experience of the successful applicant. Applicants should indicate in their applications whether they require assistance with removal and medical aid facilities.

Overseas persons should obtain the information about the immigration requirements for taking up employment in the Republic of South Africa from the South African Embassy or High Commission in their own country.

Applications, giving details of age, qualifications, experience and the names of two referees, should be sent by 30 September 1980, to the Registrar, University of the Witwatersrand, Johannesburg, South Africa, from whom further particulars may be obtained. Applicants should request all applications should be received by September 30, 1980.

LEEDS
THE UNIVERSITY
DEPARTMENT OF CONTINUING STUDIES

Applications are invited for a post of RESEARCH FELLOW in the above Department, to work in a team developing continuing models for high-powered gas lasers. Applicants should have a good honours degree in applied mathematics, computing or mathematical physics and a Ph.D. in computer and numerical analysis or computing or mathematical physics, and a knowledge of laser physics would be an advantage. The appointment will be for two years in the first instance. Salary on the scale £4,755 to £5,670 under review, according to qualifications and experience.

Further particulars may be obtained from the Registrar, The University, Leeds LS2 9JT, to whom applications should be sent by 30/10/80. Closing date for applications September 30th 1980.

LONDON
THE UNIVERSITY
DEPARTMENT OF ECONOMIC STUDIES

The Senate invites applications for a post of Assistant Lecturer in the Department of Economic Studies, tenable from 1st October 1980 or as soon thereafter as possible. The salary will be within the scale £3,705 to £4,755 per annum, according to qualifications and experience, with superannuation benefits. Applications should be sent to the Secretary of the Department, and should be received not later than 30th September 1980.

NEWCASTLE UPON TYNE
THE UNIVERSITY
TEMPORARY LECTURER IN PHYSICAL EDUCATION

The University invites applications from graduates of recognised teaching universities for the post of Temporary Lecturer in Physical Education in the Department of Education for two years, commencing 1st October, 1980, or as soon thereafter as possible.

Salary scale £3,705 to £4,755 per annum according to age, qualifications and experience.

Further particulars may be obtained from the Registrar (Ref. TL), The University, 6 Kensington Terrace, Newcastle upon Tyne NE1 7RU, with whom applications (3 copies) together with the names and addresses of 3 referees, should be lodged not later than September 17, 1980.

NEWCASTLE UPON TYNE
THE UNIVERSITY
TEMPORARY LECTURER IN PHYSICAL EDUCATION

The University invites applications from graduates of recognised teaching universities for the post of Temporary Lecturer in Physical Education in the Department of Education for two years.

Salary scale £3,705 to £4,755 per annum according to age, qualifications and experience.

Further particulars may be obtained from the Registrar (Ref. TL), The University, 6 Kensington Terrace, Newcastle upon Tyne NE1 7RU, with whom applications (3 copies) together with the names and addresses of 3 referees, should be lodged not later than September 17, 1980.

NEW ZEALAND
UNIVERSITY OF OTAGO
Dunedin
VISITING LECTURER IN BIOCHEMISTRY

Applications are invited from suitably qualified persons with appropriate experience for appointment as VISITING LECTURER IN BIOCHEMISTRY for a period of six months commencing not later than 1st September, 1981, or such later date as may be agreed upon. The appointee will be required to teach a special topic in biochemistry and to undertake research.

Salary: NZ$16,758 to NZ$19,722 per annum, depending upon qualifications and experience. Assistance with removal expenses may be paid at a discretionary rate for fares and reasonable expenses of the appointee and his or her family, the person will be subject to New Zealand taxation.

Further particulars and application forms for the position may be obtained from the Association of Commonwealth Universities (Ref. A), 36 Gordon Square, London, WC1H 0PF, or from the Registrar, P.O. Box 56, Dunedin, New Zealand.

The closing date for applications is 30th September, 1980.

THE OPEN UNIVERSITY
PROFESSOR OF ECONOMICS

Applications are invited for the CHAIR in ECONOMICS in The Open University from persons with a distinguished record of teaching and research and interest in some fields of economics. The person appointed should also have an interest in implementing new methods of teaching and assessment in undergraduate courses in Social Science and the opportunity and facilities for research will be available.

Salary will be at an appropriate point on the Grade 13 (£8,970 - 1 scale operative from April 1, 1980) £9,402 to £10,350 according to age, qualifications and experience.

Further particulars may be obtained from the Senior Assistant Registrar (Ref. 1), The University, 5 Knightsbridge, London SW1X 7RJ, with whom applications (6 copies) together with the names and addresses of 3 referees, should be lodged not later than September 17, 1980.

OXFORD
LADY MARGARET HALL
UNIVERSITY LECTURER IN ENGLISH

Applications are invited for a University Lecturership in English tenable at Lady Margaret Hall. The stipend will be in accordance with the University Lecturer scale, £4,755 to £8,970 per annum, with F.S.S.U. benefits. Applicants should have a good honours degree in English and be unable to undertake teaching in the field of early English literature.

Further particulars may be obtained from the Principal, Lady Margaret Hall, Oxford OX2 6QA, to whom applications should be sent by 30th September, 1980.

STRATHCLYDE
THE UNIVERSITY

Applications are invited for a post of ADMINISTRATOR (Academic), on the staff of the Registrar. The successful applicant will work in the Strathclyde Business School under the direction of the Director of the Business School. Applicants will preferably be aged 25-35 and will preferably have had previous experience of administration work in higher education. A degree, preferably an honours degree, will be an advantage.

Appointment will be made on Grade 6 of the national Administrative Staff of the scale £6,402-£8,790 (the pay scale is under review). Placing will be determined by appropriate qualifications and experience. Superannuation benefits.

Application forms and further particulars (quoting 45/80) and enclosing a self-addressed envelope (9in x 4in) may be obtained from the Academic Appointments Officer, University of Strathclyde, Royal College Building, 204 George Street, Glasgow G1 1XW, with whom applications should be lodged by September 24, 1980.

STRATHCLYDE
THE UNIVERSITY

Applications are invited for a three-year Temporary Lectureship in Analytical Atomic Spectroscopy in the Department of Pure and Applied Chemistry. The appointment is to be sponsored by the Pye Unicam Ltd. and the successful will work in collaboration with Dr J. M. Ottaway of the Department and Mr E. G. Morris of Pye Unicam Ltd., Cambridge.

Salary scale £5,052 to £10,554 per annum under review; with initial placing to £6,327 per annum according to qualifications and experience. Superannuation benefits.

Application forms and further particulars (quoting 44/80) and enclosing a self-addressed envelope (9in x 4in) may be obtained from the Academic Appointments Officer, University of Strathclyde, Royal College Building, 204 George Street, Glasgow G1 1XW, with whom applications should be lodged by September 24, 1980.

WARWICK
THE UNIVERSITY
TEMPORARY LECTURESHIP IN SOCIOLOGY

Applications are invited for a temporary lectureship in Sociology tenable for three years, from October 1980 or as soon as possible thereafter. Candidates will be expected to teach a third year option course entitled 'Women in Society' and to contribute also to second year compulsory courses. Candidates entitled to Problems of Modern Society lectureship will be given preference but those with specific training, experience in wood or construction technology. The Studentship is for three years leading to a Ph.D. and the award is £3,210 per annum for an investigation of the nature of the bonding that formed between wood and Portland cement, which is of considerable practical relevance to the development of cement-bonded building boards based on wood and cement.

Applications, with the names and addresses of two referees, should be sent to, and further details obtained from, Dr W. H. Banks, Department of Forestry and Wood Science (Tel. Bangor 51171 ext. 241), U.C.N.W., Bangor, Gwynedd, LL57 2UG, by 30th September, 1980.

CAMBRIDGE
KING'S COLLEGE
RESEARCH FELLOWSHIPS

Applications are invited from candidates in industrial sociology and anthropology, particularly those with experience of industrial and other authority structures and other authority qualified persons for research fellowships tenable from October, 1980, in connection with the Sloan-Fleur Bargaining Job Control and Economic Performance the British Experience in Comparative Perspective, 1870 to the Present.

For attend and other details apply to the Secretary, Research Centre, King's College, Cambridge CB2 1ST, UK. Closing date for applications: October 1, 1980.

Polytechnics

BRIGHTON POLYTECHNIC
DEPARTMENT OF MATHEMATICS

Lecturer II/ Senior Lecturer

To assist with the lecturing of mathematics in a wide range of degree courses and to contribute to the department's range of expertise in some modern applied area such as statistics or modelling.

Candidates should have a good degree in mathematics or statistics and have had relevant industrial or research experience.

Salary: Lecturer II—£6,012-£9,702; Senior Lecturer—£9,960-£11,295.

Application form and further details from the Personnel Officer, Brighton Polytechnic, Moulsecoomb, Brighton BN2 4AT. Telephone Brighton 693655 ext. 2837. Closing date three weeks after publication.

Fellowships and Studentships

BRADFORD
THE UNIVERSITY
POSTGRADUATE SCHOOL OF MATERIALS SCIENCE
SRC CASE STUDENTSHIP
in association with High Energy Sensors, Fermanagh, Magnet Abbey

Applications are invited from candidates who hold a first or upper second class honours degree in Physics, Metallurgy or Physics for an SRC CASE studentship tenable for 3 years, and leading to a Ph.D. degree in the University of Bradford. The research will be based on the association with Ultimate Magnetic Components Ltd., Fermanagh, N.I., where the candidate will be access to specialist facilities.

Applications should be addressed quoting Ref. PS/MS/2701 to Dr. P. Sherrington, University of Bradford, Bradford, West Yorks BD7 1DP.

BRISTOL
THE POLYTECHNIC
DEPARTMENT OF SCIENCE
LECTURER II/SENIOR LECTURER IN NURSING SUBJECTS
Reference No. L42/105

Salary Scale: £4,851 to £7,473 (Lec) to £8,433 to £9,339 per annum (plus £1,000 per annum London Weighting) and pending annual increments will be payable at the appropriate point on the scale according to relevant previous service/experience.

Applications are invited for the above Lecturer in Nursing. In addition to the duties of a Lecturer II, the successful applicant will be expected to undertake teaching/clinical experience in the University's Department of Community Nursing.

The successful candidate will participate in the development, teaching of a number of undergraduate courses in the Department of Nursing Studies, which is part of the Faculty of Health Studies. The Department is housed in purpose-built accommodation on the Frenchay Hospital site.

Public sector Mortgage Subsidy Scheme applies in all communities.

COVENTRY
LANCHESTER POLYTECHNIC
FACULTY OF SOCIAL SCIENCE AND PUBLIC POLICY
HEAD OF DEPARTMENT OF URBAN AND REGIONAL PLANNING

Applications are invited from candidates with appropriate qualifications and experience for the post of Head of Department. Applicants should have a relevant research and publication record in the field of study.

Salary: Lecturer II—£6,012-£9,702; Senior Lecturer—£9,960-£11,295 (under review). Salary will be within the range according to qualifications and experience.

Application forms and further particulars from the Registrar, Lanchester Polytechnic, Coventry CV1 5FB, to whom completed applications should be returned by 26th September, 1980.

Fellowships and Studentships

LEVERHULME RESEARCH FELLOWSHIP
THE UNIVERSITY
SOCIAL POLICY IN SCOTLAND

Applications are invited for the above Research Fellowship, which is financed by the Leverhulme Trust, and is tenable in the Department of Social Administration and Social Work, University of Aberdeen, for a period of two years. The Fellowship will be held by Professor David Donnison, the research Fellow will be attached to the Unit of Government in the Department, and will work in close liaison with Professor Donnison and other members of the Unit.

The salary will be a two-year appointment at £7,191-£9,435 per annum. Superannuation benefits. Applications should be sent to the Secretary, Social Science Research Council, 1 Temple Avenue, London EC4Y 0BD, for receipt not later than 30 September 1980.

FOR INFORMATION
To subscribe to the THES please write to the Subscription Manager, The Times Higher Education Supplement, P.O. Box 7, New Printing House Square, Grey's Inn Road, London WC1X 8EZ

BANGOR
UNIVERSITY COLLEGE OF NORTH WALES
CASE STUDENTSHIP S.R.C./BLUE CIRCLE CEMENT GROUP

Applications are invited for the above STUDENTSHIP from good honours graduates in a physical, chemical or materials science discipline or from those with specific training, experience in wood or construction technology. The Studentship is for three years leading to a Ph.D. and the award is £3,210 per annum for an investigation of the nature of the bonding that formed between wood and Portland cement which is of considerable practical relevance to the development of cement-bonded building boards based on wood and cement.

Applications, with the names and addresses of two referees, should be sent to, and further details obtained from, Dr W. H. Banks, Department of Forestry and Wood Science (Tel. Bangor 51171 ext. 241), U.C.N.W., Bangor, Gwynedd, LL57 2UG, by 30th September, 1980.

City of Birmingham Polytechnic

Faculty of Art and Design
Department of Fashion and Textiles
LECTURER I in VISUAL PERCEPTION and Drawing (half-full time)
to teach drawing and experimental usage of media and colour, mainly to BA (Hons.) students of the Fashion Printed and Woven Textiles and BA (Hons.) Textiles students.

Faculty of the Built Environment
Birmingham School of Architecture
SENIOR LECTURER in ARCHITECTURE
Required, preferably with teaching experience, to take responsibility for the teaching of architecture in the Building Team formed between wood and Portland cement which is of considerable practical relevance to the development of cement-bonded building boards based on wood and cement.

Faculty of Business Studies and Law
Department of Accounting and Finance
LECTURER I/SENIOR LECTURER in FINANCIAL ACCOUNTING
Graduate required with relevant professional qualification and experience, to teach on professional degree and other courses.
LECTURER II/SENIOR LECTURER in BANKING
Graduate required with relevant professional qualification and experience, to teach on Institute of Bankers Stage 2 and Studies Diploma courses.

Faculty of Education and Teacher Training
Department of Undergraduate Teacher Education
LECTURER II in MOVEMENT STUDIES
required at ARSTEY SCHOOL OF PHYSICAL EDUCATION, Birmingham, to contribute to other practical and theoretical areas of the course.

Faculty of Engineering and Science
Department of Electrical Engineering
SENIOR LECTURER in ELECTRONICS
To teach electronics at advanced levels and to undertake research and development in digital electronics desirable.
SENIOR LECTURER in ELECTRICAL PRINCIPLES
required to teach on a wide range of courses, capable of teaching circuit analysis/electronics at degree level.
Department of Mechanical and Production Engineering
LECTURER II/SENIOR LECTURER—2 POSTS
(1) MECHANICS OF MATERIALS AND STRUCTURES
(2) DYNAMICS OF MACHINES AND CONTROL
Young enthusiastic graduate engineers required to teach and undertake research in their specialist fields. Successful candidates will be expected to teach to degree level, participate in research and consultancy, and contribute to the development of new experimental techniques.
Department of Science
LECTURER II/SENIOR LECTURER in CLINICAL PSYCHOLOGY
required to contribute to teaching on the degree courses in Speech and Language Pathology and to other courses, e.g., nursing. Candidates should possess a degree in Psychology together with a post-graduate qualification in Clinical Psychology.
(*Application forms to be returned by 26th September unless otherwise stated*) for the above posts from the Personnel Officer, City of Birmingham Polytechnic, Perry Barr, Birmingham B42 2SU (0216 356 3277 Ext. 217).

Faculty of Arts

DIRECTOR OF STUDIES AND HEAD OF SCHOOL OF TEXTILES/FASHION

Salary Scale : £12,942-£15,432
Applications are invited for the post of Director of Studies and Head of the School of Textiles/Fashion.
Applications will be considered from persons well qualified by teaching, research and administrative experience to provide leadership in the field of textile and fashion design.
The successful applicant will be eligible to be considered for a Professorship.
The post will be tenable from 1st January, 1981.
The Polytechnic is a direct grant institution with an Independent Board of Governors, which opened in 1971 and now has a student population of some 7,500. It is situated on two sites, the Art and Design Centre in Belfast where the above post will be located, and the main campus at Jordanstown, some six miles away on the shore of Belfast Lough. There is a scheme of assistance with removal.
Further particulars and application forms which must be returned by 19 September, 1980, may be obtained by telephoning Whiteabbey (0231) 65131, ext. 2243, or by writing to:
The Establishment Officer, Ulster Polytechnic, Shore Road, Newtownabbey, Co. Antrim, BT37 0QB.

Ulster Polytechnic

The Polytechnic Wolverhampton

Department of Legal Studies

SENIOR LECTURER/LECTURER II IN LAW -2 POSTS

Required to teach on the B.A. (Hons.) Law degree courses (Full time and part time) and on other degree and professional courses.

Senior Lecturer Salary Scl. £8,955-£11,295
Lecturer II Salary Scl. £6,013- £9,702

The level of appointment will depend on age, qualifications and experience.
Application forms and further particulars from: Personnel, The Polytechnic, Wolverhampton (WV1 1SB; Tel. 710984 (24 hour Answerphone Service).

Polytechnics continued

ROBERT GORDON'S INSTITUTE OF TECHNOLOGY, ABERDEEN
SCHOOL OF HEALTH VISITING

LECTURER

with Health Visitor Tutor's Certificate or, Nurse Teacher/Teacher's Certificate with appropriate experience or, relevant degree with appropriate experience required for Health Visitor courses and opportunity for participation in other courses and development of new courses.

Salary range £5,985-£11,207 per annum (under review).

Assistance with removal expenses.

Details from

Secretary,
Robert Gordon's Institute of Technology,
Schoolhill,
Aberdeen AB9 1FR.
(0224 574511)

Queen Margaret College
EDINBURGH
A Scottish Central Institution — Founded in 1875

LECTURER IN HUMAN COMMUNICATION

Applications are invited from candidates with an appropriate degree, and preferably with research experience in an area of human communication and specialist teaching or research interest in one or more of the following fields: Semiotics, Stylistics, Mass Media and Society, Organisational Communication.

Salary scale : £5,985-£10,434 (bar)-£11,207 per annum.

Application forms and further particulars from the Secretary, Queen Margaret College, Clerwood Terrace, Edinburgh EH12 8TS. Telephone 031-339 8111.

City of Birmingham Polytechnic
The Governing Body invites applications for the post of:

DEPUTY DIRECTOR (STAFF AND STUDENT AFFAIRS)

following the retirement of Mr R. H. Durham, B.Litt., M.A.

Tenable : 1st May, 1981.
Salary : £16,164 (under review)

Application forms and further details are obtainable from :

Mr W. S. Gale, Clerk to the Governing Body, City of Birmingham Polytechnic, Perry Barr, Birmingham B42 2SU.

Closing date for receipt of applications : 10th October, 1980.

BRISTOL
THE POLYTECHNIC
SOUTH WEST REGIONAL MANAGEMENT CENTRE
DEPARTMENT OF MANAGEMENT STUDIES
LECTURER I/SENIOR LECTURER IN MARKETING

Ref. No. L42/106
Salary Scale: £4,851-£7,191 (Lec I) to £8,433-£9,339 (Sen Lec) (plus £1,000 per annum London Weighting) and pending annual increments will be payable at the appropriate point on the scale according to relevant previous experience.

Applications are invited for the above Lecturer in Marketing. In addition to the duties of a Lecturer I/Senior Lecturer, the successful applicant will be expected to undertake consultancy work and to contribute to the development of new courses in Marketing in response to the changing needs of the environment. The Department of Management Studies is housed in purpose-built accommodation on the Frenchay Hospital site.

Public sector Mortgage Subsidy Scheme applies in all communities.

LONDON
THE POLYTECHNIC OF THE SOUTH BANK
Borough Road, London SE1 0AA
DEPARTMENT OF ACCOUNTANCY AND FINANCE
LECTURER II
ACCOUNTING
Ref. 79/81

Applications are invited from graduates with qualifications, interests and experience in accounting. To teach students on B.A. Business Studies, H.N.C. Higher Diploma and other courses. Research interests are encouraged.

Salary scale £3,687 to £4,755 inclusive.

Further particulars and application form from the Staffing Office, Polytechnic of the South Bank, Borough Road, London, SE1 0AA.

LONDON
THAMES POLYTECHNIC
SCHOOL OF SOCIAL SCIENCES
RESEARCH ASSISTANT IN ECONOMICS

Applications are invited from undergraduate students in Economics with at least Upper Second Class honours for a two year appointment to start as soon as possible.

Salary scale £3,687 to £4,755 inclusive.

Further particulars and application form from the Staffing Office, Thames Polytechnic, Wellington Street, London, SE18 6PF, to be returned by September 22, 1980.

LONDON
THE POLYTECHNIC OF NORTH LONDON
DEPARTMENT OF MANAGEMENT

Applications are invited for the following posts:

SENIOR LECTURER/LECTURER (GRADE II) IN COMPUTING

Candidates should have a good honours degree or postgraduate qualification in computer science, or possess an MBSC by examination. They should have a recognised practical experience in Computing and be able to provide expertise in the Computer Science Area of Data Processing for Business Systems on mini-computers.

The Department offers CNAA BSc (Honours) courses in Mathematics and Computing, Statistics and Computing, and Mathematics and Statistics and HND courses in Mathematics, Statistics and Computing and a Postgraduate Diploma in Computing.

The Polytechnic has a DEC KL/1091 computer system, involving a second mini/macro and batch processing service. The Department has a range of microprocessor equipment.

Senior Lecturer £7,191-£8,433 plus £600 London Allowance.

Lecturer (Grade II) £4,851-£7,794 plus £600 London Allowance, together with £1,000 approval.

(Staff at the top of the Lecturer I Grade in Scale two cannot progression to the Senior Lecturer Scale subject to satisfying an efficiency requirement).

Application forms and further particulars (please state post in which interested) can be obtained from the Establishment Officer, The Polytechnic of North London, Holloway Road, N7 8DB.

Closing date: 14 days from the appearance of the advertisement.

LONDON
THE POLYTECHNIC OF NORTH LONDON
FACULTY OF ECONOMIC AND ADMINISTRATIVE STUDIES
DEPARTMENT OF ACCOUNTING AND ADMINISTRATIVE STUDIES
LECTURER (GRADE II) SENIOR LECTURER IN ACCOUNTING

To teach on the CNAA honours degree course in Accounting and Business Studies and the Association of Certified Accountants courses. Preference will be given to applicants able to teach financial accounting.

Applicants should possess a good honours degree or a higher degree in accounting. A professional qualification would be an advantage.

Salary: Lecturer £7,191 to £8,433 plus £600 London allowance; Senior Lecturer £8,955 to £9,681 plus £600 London allowance (under review).

(Staff at the top of the Lecturer II scale on 1st September proceeding to the Senior Lecturer scale subject to satisfying an efficiency requirement).

Application form and further particulars can be obtained from the Staffing Office, Polytechnic of North London, Holloway Road, N7 8DB.

Closing date: 14 days from the appearance of this advertisement.

PORTSMOUTH
THE POLYTECHNIC
SCHOOL OF LANGUAGES AND AREA STUDIES

LECTURER (SENIOR LECTURER in FRENCH STUDIES required as from 1st September, 1980, or as soon as possible thereafter but not later than 1st January, 1981. Candidates must be fluent in French, language and should preferably be qualified to teach French Business and possibly French History, but those offering other disciplines (e.g. Economics, Business Studies) will also be considered.

Application forms and further particulars from the Staff Appointments Officer, Portsmouth Polytechnic, Alexandra House, Museum Road, Portsmouth PO1 2QQ, to whom completed applications should be returned by Monday, 15th September, 1980, quoting Ref No. FC1.

SUNDERLAND
THE POLYTECHNIC
Re-advertisement
FACULTY OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING
LECTURER II IN ENGINEERING DESIGN
Salary scale £6,012 to £6,963 Bar £6,702 per annum

Applicants should ideally have had several years industrial experience as a Design Engineer. It is essential that the successful candidate will expand the teaching of the use design methods within the department, including the use of computers and mathematical techniques. He should also be prepared to foster close links with industry.

An application form and further particulars may be obtained from the Personnel Officer, Sunderland Polytechnic, the Langham Tower, Ryhope Road, Sunderland SR2 7EE. Closing date 19th September, 1980.

Previous applicants need not reapply.

Colleges of Education

LONDON
POLYTECHNIC OF THE SOUTH BANK
Borough Road, London SE1 0AA
DEPARTMENT OF ACCOUNTANCY AND FINANCE
LECTURER II
ACCOUNTING
Ref. 79/81

Applications are invited from graduates with qualifications, interests and experience in accounting. To teach students on B.A. Business Studies, H.N.C. Higher Diploma and other courses. Research interests are encouraged.

Salary scale £3,687 to £4,755 inclusive.

Further particulars and application form from the Staffing Office, Thames Polytechnic, Wellington Street, London, SE18 6PF, to be returned by September 22, 1980.

LONDON
THAMES POLYTECHNIC
SCHOOL OF BUSINESS ADMINISTRATION
HEAD OF DIVISION OF MARKETING
PRINCIPAL/SENIOR LECTURER

Applications are invited from candidates of proferably leading a higher degree in Marketing, with experience of marketing in an international context, and of teaching and research. Foreign language competence and familiarity with computer applications in marketing would be advantageous.

SCHOOL OF HUMANITIES
TEMPORARY ASSOCIATE LECTURER IN ENGLISH
(Half-time)

Required from January, 1981. Applicants should be qualified primarily to teach pre-1775 and 19th century literature on Pass and Honours degrees in English studies.

SCHOOL OF MATERIALS SCIENCE AND PHYSICS
TEMPORARY ASSOCIATE LECTURER (Physics)
(Half-time)

Applications are invited for a temporary associate half-time appointment to teach Materials Science to Engineering degree students in Architecture and Building. Applicants should have a relevant honours degree and preferably be registered for a higher degree. Experience in teaching to students who are not specialists in physics would be advantageous.

Part-time salary scales: Principal Lecturer £6,116 to £12,321 (to £13,864 inclusive); Senior Lecturer, £9,861 to £11,004 (bar) to £11,004; Lecturer, Grade II, £6,621 inclusive to £10,311 (bar) to £11,004.

Further particulars and application forms from the Staffing Office, Polytechnic of the South Bank, Borough Road, London, SE1 0AA.

Closing date: 14 days from the appearance of this advertisement.

Colleges and Departments of Art

DUDLEY
(Metropolitan Borough)
STOURBRIDGE COLLEGE OF TECHNOLOGY AND ART
FACULTY OF ART AND DESIGN : DEPARTMENT OF FINE ART
SENIOR LECTURER IN FINE ART

Applications are invited for the above post to teach students on the CNAA Honours degree course in the Department of Fine Art to commence January, 1981.

Application forms and further particulars from the Principal (Reference SCTA/FA), Stourbridge College of Technology and Art, Church Street, Stourbridge, West Midlands DY8 1LY, on receipt of a stamped, addressed foolscap envelope.

Courses

SURREY
THE UNIVERSITY
DEPARTMENT OF PHILOSOPHY
M.A., M.Phil. and Ph.D. in PHILOSOPHY

The Department offers the above degrees by research on a part-time or full-time basis.

The M.A. degree is taken with specialism in one of: Philosophy of Education, Religious Studies, Philosophy of Science.

The M.Phil. and Ph.D. degrees are taken by research and thesis.

Further details available from the Department Secretary, Department of Philosophy, University of Surrey, Guildford GU2 5XH.

Colleges and Institutes of Technology

Leith'an Regional Council
NAPIER COLLEGE OF COMMERCE AND TECHNOLOGY

LECTURER A in MANAGEMENT INFORMATION SYSTEMS/SYSTEMS ANALYSIS

Salary on Scale : £5,159-£8,159 (Bar)—£3,840 (Under Review)

required in the Department of Management to assist in the teaching and development of a range of courses at degree and diploma level.

Applicants should possess a degree or equivalent professional qualifications and preferably have had industrial research or teaching experience.

LECTURER B/SENIOR LECTURER I in POLYMER TECHNOLOGY

Salary either £4,776-£7,911 or £5,190-£8,289 (Under Review)

required in the Department of Chemistry to lecture in the areas of plastics technology and rubber technology, and assume some of the administrative duties of the Department.

Candidates should possess a relevant degree or graduateship of the Plastics and Rubber Institutes and have had appropriate experience in the Polymer processing industries particularly in rubber technology or injection moulding.

Application forms and further particulars from : The Administrative Officer (Personnel), Napier College of Commerce and Technology, Colinton Road, Edinburgh EH10 5DT.

Administration

Council for National Academic Awards

ASSISTANT REGISTRARS

Applications are invited for four posts of Assistant Registrar. Three posts will carry responsibilities in one or more of the following Academic Units : Business and Social Studies, Science, Institutional Reviews, and Research Degrees.

The fourth post is within the area of the Secretary of the Council, and it is envisaged that the major responsibilities of the post will include servicing major policy committees, maintenance and interpretation of the Council's regulations for its awards, and production and further development of the Council's publications.

Candidates for these posts should be well qualified academically and possess appropriate teaching and/or academic administrative experience, preferably in an institution of Higher Education or professional body.

The salary on appointment will be within the scale £9,561-£12,321 p.a.; (merit bar £11,148 p.a.) including London Weighting.

Further particulars may be obtained from : Assistant Secretary (Personnel), CNAA, 344/354 Gray's Inn Road, London WC1X 8BP. Tel. : 01-278 4411, to whom applications giving details of qualifications and experience and the names and addresses of two referees should be submitted by 19 September 1980. Please specify for which post/s details are required.

oxford polytechnic

Assistant Director

(readvertisement of new post)

Salary £19,629

Applications, including a curriculum vitae and the names of three referees, should be sent by 26 September, 1980, to the Director, Oxford Polytechnic, Oxford, OX3 0BP, from whom further particulars and application forms may be obtained.

Colleges of Higher Education

NIHE

National Institute for Higher Education Dublin
Foras Náisiúnta um Ardoideachas Baile Átha Cliath

Lecturer in the Faculty of Education Studies

A challenging opportunity exists for an experienced well-qualified person to assist in making the services of Staff Development, Curriculum Development and Education Technology available to the academic and non-academic staff of the Institute. A high level of interpersonal skills is required.

A substantial commitment to the planning of appropriate courses in the areas of Staff Development, Curriculum Development and Education Technology is also required.

SALARY SCALE (Under Review) £8,812-£11,942.

Application forms are available from: Personnel Office, National Institute for Higher Education, 1 Lower Grand Canal Street, Dublin 2, Ireland. Telephone: Dublin 765175.

ges of Higher Education continued

nihe limerick

THE NATIONAL INSTITUTE FOR HIGHER EDUCATION

The College of Engineering and Science is being expanded in response to increasing demand for graduates in certain key areas. Those appointed to the following posts will be expected to contribute to the operation and development of a variety of programmes at diploma, degree and post graduate levels. Applicants are normally expected to hold an appropriate advanced degree and have relevant experience.

ENGINEERING DESIGN
SENIOR LECTURER/LECTURER

The person appointed to this senior post will have a record of high achievement experience in Engineering Design work related to areas such as Manufacturing and Mechanical Engineering is required. While Engineering Design is an important aspect of all NIHL engineering programmes the person appointed will have special responsibility for the development of the Degree programme in Industrial Design operated jointly with the National College of Art and Design.

MATERIALS SCIENCE
LECTURER/ASSISTANT LECTURER

Specialisation in an area related to inorganic Materials is required and expertise in Ceramics is desirable.

The person appointed will be involved in teaching relevant aspects of Chemistry and Materials Science on diploma, degree and post-graduate programmes operating within the College of Engineering and Science. Research interest in an appropriate area is expected.

MECHANICAL/PRODUCTION ENGINEERING
(2 POSTS)
LECTURER/ASSISTANT LECTURER

The persons appointed will have expertise in one or more of the following areas:- Energy Utilisation, Low Cost Automation, Metrology, Jig and Tool design, and machine tools. An interest in an appropriate area of Applied Research is expected.

SALARY SCALES:

SENIOR LECTURER:	£10,290-£13,089 p.a.
LECTURER:	£8,613-£11,862 p.a.
ASSISTANT LECTURER:	£6,750-£8,436 p.a.

Application forms and further information are available from the Personnel Officer, National Institute for Higher Education, Limerick, Ireland, to be completed and returned by 3rd October, 1980.

WEST GLAMORGAN County Council

WEST GLAMORGAN INSTITUTE OF HIGHER EDUCATION

LECTURER II
COMPUTING AND MATHEMATICS

Applications are invited from Computing/Mathematics graduates for the above post in the Authority's service, to commence as soon as can be arranged. The successful applicant would be expected to teach within the School of Mathematics and Computing on TEC/BEC courses—especially the HND in Computer Studies, and also on professional computing courses. Relevant industrial or teaching experience would be desirable. (Post ref.: HE8/9/4/79).

Application forms and further particulars of this post can be obtained from The Principal, West Glamorgan Institute of Higher Education, Townhill Road, Townhill, Swansea, SA2 0UT.

The closing date for the receipt of completed application forms is Thursday, 18th September, 1980.

TRINITY AND ALL SAINTS' COLLEGE
(Affiliated with the University of Leeds)

Trinity and All Saints' College, an independent institution affiliated with the University of Leeds, provides studies leading to B.A. (Collegiate), B.Sc. (Collegiate) and B.Ed. Honours Degrees of the University.

LECTURER II/SENIOR LECTURER IN COMMUNICATION

The School of Communication is seeking a person to join a team of tutors teaching courses leading to B.A./B.Sc. (Collegiate) Ordinary and Honours Degrees of the University of Leeds. This post is suited to applicants in the field of communication with experience of or an interest in media, audience studies, broadcasting or journalism. Applicants should possess an appropriate degree and preferably have research experience in an area of communication.

Subject to implementation of the recommendations resulting from the recent review, with effect from September, 1980, salary scales will be as follows:—

LECTURER II—£5,229-£8,436
SENIOR LECTURER—£7,705-£9,822

Further particulars and application forms, which should be returned by Friday, 19th September, 1980, are obtainable from:—

The Registrar, Trinity and All Saints' College, Brownberrie Lane, Horsforth, LEEDS LS18 5HD.

College of St. Mark & St. John

PROFESSIONAL STUDIES LEADER
PRIMARY
SENIOR/PRINCIPAL LECTURER
(for January, 1981)

The main function of this post is to lead the college in revising and reorienting its primary professional work at in-service and pre-service levels in the light of the contemporary curriculum debate. We are looking for a person who has held a post of senior responsibility in primary schools and has experience of curriculum development. The person appointed will contribute to the teaching programme according to his/her expertise and interest.

SALARY SCALE:
SL: £9,882-£11,205
PL: £10,590-£11,925

WRITTEN DETAILS OF THIS POST ARE AVAILABLE FROM THE REGISTRAR'S SECRETARY.

College of St. Mark & St. John, Derriford Road, Plymouth PL6 8BH. Tel: (0752) 777188.

Bedfordshire Education Service
LUTON COLLEGE
of Higher Education
Department of Business Studies & Public Administration

LECTURER GRADE II
in Finance, Computer Studies or Quantitative Methods

Applications are invited from those able to teach Computer Studies and Finance on BEC Higher National Awards and interested in developing computer assisted learning.
Salary scale £5,229-£8,436 (under review).

Department of Engineering Technology
LECTURER GRADE I
in Electronics

Candidates should have a degree and/or appropriate industrial experience and a professional qualification. There will be an opportunity to teach to Higher Certificate level.
Salary scale: £4,071-£6,801 (under review).
Details and application form from Assistant Director, Luton College of Higher Education, Park Square, Luton, Beds., Tel: (0582) 34111 ext. 251. Closing date two weeks after appearance of this advertisement.

west sussex
INSTITUTE OF HIGHER EDUCATION

Lecturer in Biology Offer
Commencing Salary £5,229

to support the Institute's basic science programme in Biology, to develop and implement new courses and to undertake research.
The appointment will be in the Department of Applied Biology which offers courses based on the Institute's Biology Laboratories.
Applicants should have a degree in Biology and preferably a higher degree and teaching experience in the biological sciences. Research interests in Applied Biology will be welcomed.
Salary will be on the Lecturer II scale (£5,229-£8,436) with placement according to qualifications and experience.
Details and application form from the Personnel Officer, West Sussex Institute of Higher Education, Bishop Otter College, Chichester, PO19 4PE. Tel: Chichester 784717.
Closing date for receipt of completed application forms 24th September, 1980.

REMINDER

Copy for classified advertisements in the T.H.E.S. should arrive not later than 10.00 a.m. Monday preceding the date of publication

CANBERRA COLLEGE OF ADVANCED EDUCATION

HEAD OF THE SCHOOL OF EDUCATION

REF NO. CD/2104

Mr P. W. Hughes, the Foundation Head of the School of Education in the College has accepted a Chair in Education at the University of Tasmania. He will leave the College at the end of 1980 and the College Council is wishing to identify his successor without delay with a view to ensuring that the new Head of School will be in post well before the commencement of the academic year 1981.
The Council therefore invites applications from men and women in possession of high level academic qualifications and professional standing as teachers and administrators in Teacher Education. Previous experience in working within the environment of a polytechnic or metropolitan institute of technology or University or other tertiary level institution with a significant programme in teacher education might give an applicant a particular point of advantage. Above all, the College is looking for a person with ideas, imagination and a demonstrated capacity for leadership who will recognise and accept positively the challenge of this position.

General Conditions

The present salary attaching to *the position is $A37,151 per annum* and while in the position the appointee will receive a responsibility allowance of $A1,260 per annum. Assistance with housing will be provided for a person moving to Canberra to take up appointment. Fares for the appointee and family and reasonable removal costs will be paid.
Applications should give personal details, particulars of qualifications, experience, previous appointments, present position, telephone number during business hours and the names and addresses of three referees. Applications quoting reference number are required by 26 September, 1980, and should be addressed to: The Registrar, Canberra College of Advanced Education, P.O. Box 1, Belconnen, ACT 2616, Australia, and a copy should be forwarded to: the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.
The College Council reserves the right to fill the post by invitation.

LANCASTER
THE UNIVERSITY
RESEARCH ASSOCIATE
COMPUTER STUDIES

Applications are invited for a post of RESEARCH ASSOCIATE to participate in [illegible] Computer Communications Project [illegible] Applicants should [illegible] degree and preferably [illegible] Science and experience in [illegible] high level languages [illegible] to five years [illegible] at present below [illegible]

Further particulars [illegible] obtained [illegible] from the Personnel Officer, The Lancaster [illegible] Lancaster LA1 4YW, to whom applications should be sent [illegible] 26th September, 1980.

LANCASTER
THE UNIVERSITY
RESEARCH ASSOCIATE

Applications are invited for a two-year post of RESEARCH ASSOCIATE in the MATERIAL ANALYSIS DIVISION, ENGLISH ELECTRIC [illegible] appointee will work in the Spectrochemical Laboratory of the Department of [illegible] and Metallurgy and the Department of Computer Studies. Applicants should have a good honours degree and preferably a postgraduate qualification in research experience in one or more of three fields: Computer Science, Chemistry, Linguistics. The appointee will be from January [illegible] or from a date to be agreed. The starting salary will be [illegible] below £6,052 per annum according to age and experience.

Further particulars may be obtained [illegible] (Ref. L79/C) from the Personnel Office, The Lancaster University, Lancaster LA1 4YW, to whom applications, quoting reference number, should be sent [illegible] September 22, 1980.

LONDON
CHELSEA COLLEGE
(University of London)
RESEARCH FELLOW
COGNITIVE ACCELERATION THROUGH SCIENCE EDUCATION PROJECT

Applications are invited for this [illegible] post [illegible] by the S.S.R.C. for certain studies on the [illegible] of computer [illegible] through science [illegible] The applicant should be prepared to use his/her science in psychology to [illegible] evaluations and development [illegible] Piagetian process tests, [illegible] of the revision and [illegible] curricula in secondary [illegible]

The post is initially for 2 years, to start as soon as possible and the salary will be on the scale £4,052 to £5,754 per annum [illegible] Abbreviated, F.R.C.

Further details and application forms may be obtained from the Personnel Officer, Chelsea College, Pulton Place, London SW6 5PR, to whom completed forms should be returned by 26th September, 1980.

Research Posts

university college of swansea

Senior Research Officer

Applications are invited for the vacancy of Senior Research Officer in the Department of Sociology and Anthropology. Applicants should be sociologist with research experience, and the successful candidate will head a major SSRC-funded research project into the social consequences of redundancy in the steel industry in south-west Wales.
The appointment, which will be from the soonest date that can be arranged, will be for three years, and the commencing salary, depending on age and experience, will be on the scale £5,052-£10,434 per annum plus USS/USDPS benefits.
Further particulars and application forms (A4 copies) may be obtained from Office, University College of Swansea, Singleton Park, Swansea SA2 8PP to which offers they should be returned by Monday, 22 September, 1980.

OXFORD
CHRIST CHURCH
RESEARCH LECTURESHIP

The Governing Body of Christ Church intends to make [illegible] available from October 1981 [illegible] work. Research [illegible] Christ Church [illegible] are given to men and women [illegible] Applicants will be [illegible] Applications will be [illegible] Applications [illegible] Governing Body [illegible] Lecturer [illegible] £4,994 to £6,

Further particulars of [illegible] and application forms [illegible] the Dean of Christ Church, [illegible] candidates are asked [illegible] three referees [illegible] to reach the Dean [illegible] Nov. 1st.

Senior Scholarships [illegible] advertised separately [illegible]

SHEFFIELD
THE UNIVERSITY
SENIOR RESEARCH ASSISTANTSHIP

The Mechanical Engineering Department of the University is expanding its research effort in the area of [illegible] and has a vacancy for a Senior Research Assistant for [illegible] Assistant will join a group [illegible] and will be expected to [illegible] and have [illegible] Applications are invited for an appointment [illegible] Starting salary will be [illegible] according to age and experience.

Further details and application forms may be obtained from the Personnel Officer, The Lancaster University, Lancaster LA1 4YW, to whom applications should be sent [illegible] September 22, 1980.

BATH
THE UNIVERSITY
SCHOOL OF MATHEMATICS
RESEARCH OFFICER IN COMPUTING
FORTRAN/ADA CONVERSION
£10

Applications are invited for a research post, tenable for 12 months in the first instance, funded by the SRC for two years from October 1980, to work with Dr. [illegible] on a programming aid [illegible] FORTRAN programs to ADA. Candidates should have a degree, should be competent in computing, and should have had [illegible] experience in [illegible] Experience in compiling techniques and the ADA language would be appropriate.

Starting salary will be £6,045 according to age and experience.

Further details and application forms may be obtained from the Personnel Officer, The University, Bath BA2 7AY, quoting reference 80/AR. Closing date 10th September, 1980.

WOLVERHAMPTON
THE POLYTECHNIC
RESEARCH IN FINANCIAL INFORMATION SYSTEMS

RESEARCH ASSISTANT for [illegible] a project sponsored by [illegible] Applications should be sent [illegible] Personnel Officer, Wolverhampton Polytechnic, Wulfruna Street, Wolverhampton WV1 1SB, Telephone (0902) 21321 Ext. 238.

Closing date 24th September, 1980.

Application forms and details from the Personnel Officer, Wolverhampton Polytechnic, Wulfruna Street, Wolverhampton WV1 1SB.

24 hour answerphone service [illegible]

Hull College of Higher Education
FACULTY OF SCIENCE, ENGINEERING AND [illegible]
PRINCIPAL LECTURER IN CONTROL ENGINEERING/SYSTEMS
Required as soon as possible for this new post a highly qualified and experienced person to develop the subject in planned CNAA degree and the advanced programmes.
Specialist short courses and research/consultancy activities are encouraged.
Salary £5,355-£6,162 (Bar) £10,542 (Subject to review).
Further details and application forms are available from the Personnel Officer, Hull College of Higher Education, Queen's Gardens, Hull HU1 3DH.
Telephone (0482) 224121 Ext. 238.
Closing date for completed applications 24th September, 1980.

Research Posts continued

SOCIAL SCIENCE RESEARCH COUNCIL
Centre for Socio-Legal Studies, Wolfson College, Oxford

Professorial Level
Social Science Appointment

Applications are invited for a senior social science post at this Centre. Applicants should be interested in developing research in the relationship between any of the social sciences and the law and legal institutions, although interests in economics may be preferred. The appointment will be at University Professorial level and may involve designation as Joint Director with Mr. D. R. Harris. In either case the person appointed to this post would enjoy within the University of Oxford the normal security of tenure for academic staff until the age of 65, *regardless of the life of the Centre.* There is a non-contributory pension scheme. The appointee may be offered a Fellowship of Wolfson College.
Further particulars of the post may be obtained from the Secretary of the Council, Dr. C. S. Smith, at 1 Temple Avenue, London EC4Y 0BD. Applications, including a full curriculum vitae, should reach him by 30 September, 1980.
Those who have responded to the Council's earlier advertisement need not apply.

For Sale

THE ONLY ENGLISH EDITION OF THE
'SELECTED
LYRICS AND SATIRES
OF
THE EARL OF ROCHESTER'

Edited with an introduction by Ronald Duncan just published by The Rebel Press. £3.95 plus 30p p. and p. Orders to: Element Books Ltd., Tisbury, nr. Salisbury, Wilts. Tel.: 074-787 0747.

Overseas

UNIVERSITY OF GUYANA
Vacancy—Department of Sociology

Applications are invited for the following vacant positions in the Department of Sociology:

(a) Lecturer (capable of teaching two of the following courses:
(i) Principles and practice of Social Work
(ii) Fields of practice in Social Work
(iii) Social work research

(b) Lecturer capable of teaching the following courses:
(i) Contemporary sociological theory
(ii) Applied sociology

Applicants should have at least a second degree in Sociology.

Salary scale (per annum): Lecturer: UA$ [illegible] x G$400-G$14,760.

Benefits include housing allowance, contributory medical and pension scheme and study leave. Anyone returning from overseas will make up to [illegible] economy air passages (i.e. for himself, wife and unmarried children up to eighteen years of age) from point of [illegible] limited removal expenses and a settling-in allowance.
Candidates should state name, date of birth, marital status, qualifications and experience (with dates), names and addresses of three referees (one of the referees must be your present or last employer where applicable), must reach the Personnel Section, University of Guyana, P.O. Box 841, Georgetown, Guyana, S.A., before 28th September, 1980.

UNIVERSITY OF NATAL
DEPARTMENT OF FRENCH
DURBAN

Applications are invited from suitably qualified persons, regardless of sex, religion, colour or national origin for appointment to the post of:

SENIOR LECTURER

Salary in the range R13,788-R17,100

The commencing salary notch will be dependent on the qualifications and experience of the successful applicant. In addition, a service bonus of 93 per cent of one month's salary is payable, subject to Treasury regulations.

Application forms and further information may be obtained from the Registrar, University of Natal, King George V Avenue, Durban, with whom must be lodged, on the prescribed form, applications for the above post by 10th October, 1980, quoting reference Adv. D86/80.

Collaiste na hOllscoile Gaillimh
UNIVERSITY COLLEGE GALWAY, IRELAND

LECTURESHIP IN APPLIED PHYSICS AND ELECTRONICS

Applications are invited for the above vacancy. Salary scale £9,558 by (7) to £13,026.

Applicants should be Physicists or Electrical Engineers preferably with good experience in Microprocessors and computing. Industrial and/or teaching experience would be an advantage. In the event that suitable candidates are not available for the Lectureship, the College may consider making an appointment at Lecturer/Senior Lecturer level. Salary scale £6,234 by (10) to £8,670.

Closing date for receipt of applications 20th October, 1980.

Further information may be obtained from the Registrar, University College, Galway (Ireland).

Western Australia
Education Department

Technical Education Division

The Division is the primary manpower training agency in Western Australia. Its functions include the provision of vocational education and training associated with the needs of industry and business, together with education and training for the personal development of adults in the community.

DIRECTOR OF STUDIES
Salary: $A35,486

In response to major challenges of projected technological change and massive industrial and resource development in the state over the next decade, the Government is in the process of upgrading and strengthening the technical education division. A part of this re-organisation is the creation of a new directorate of studies. The person occupying the new post of Director of Studies will be expected to provide dynamic and innovative leadership in the development of technical and further education studies.

Qualifications and Experience:

Tertiary level and/or professional qualifications in a relevant field, together with considerable experience in TAFE, particularly in the leadership of curriculum research and development. Experience in industry and the oversight of teaching and teacher-development in TAFE will be an advantage.

Duties:

Responsible to the Assistant Director-General of Education (Technical) for the development of educational programmes to meet emerging needs of the community and to this end, to develop and maintain a highly interactive and responsive relationship with all sectors of industry and the community, maintains an effective curriculum research and development activity, implement and manage research programmes and pilot studies related to curriculum development and the evaluation of teaching strategies, develop and implement initial technical teacher training programmes, supervise a team of officers in the oversight and development of teaching in technical and further education.
Position No. 14 0305.

ASSISTANT DIRECTOR OF STUDIES
Salary: $A32,273

Qualifications and Experience:

Tertiary level and/or professional qualifications in a relevant field together with considerable experience in TAFE. Experience in industry and the oversight of teaching and teacher-development in TAFE will be an advantage.

Duties:

Responsible to the Director of Studies (Technical Education) for the development of educational programmes to meet emerging needs of the community and to this end, to develop and maintain a highly interactive and responsive relationship with all sectors of industry and the community, direct the work of the curriculum research and development section and the examinations centre, supervise a team of officers engaged in the oversight and development of teaching in technical and further education.
Position No. 14 0355.

Conditions of Service:

Three months' long service leave after seven years' continuous service, four weeks' annual leave plus ten statutory public holidays, generous cumulative sick leave entitlements, superannuation benefits and other general conditions applicable to permanent officers employed under the provisions of the Public Service Act, 1978.

Transport and Removal Assistance:

The cost of first class airfares incurred by the appointee, spouse and dependent children under the age of 16 years (where applicable), plus a reasonable amount for removal of essential personal and household effects, subject to the appointee entering into an agreement to remain in the employ of the state for one to three years, according to assistance given.

General:

Further information may be obtained from Mr P. H. Forrest, Assistant Director-General of Education (Technical), Technical Education Division, 66 Parliament Place, West Perth, Western Australia 6005, or from the office of the Agent General for Western Australia. Mr. P. H. Forrest will be available at the office of the Agent General until September 19th, 1980. Western Australia House, 115 Strand, London WC2R 0AJ.

Applications:

To state age, citizenship, qualifications and experience with the names of two (2) referees to the: Chairman, Public Service Board, Elder House, 111 St. George's Terrace, Perth, Western Australia, 6000.
Please quote appropriate Position No.
Closing date October 3rd, 1980.

UNIVERSITY OF THE WITWATERSRAND
JOHANNESBURG, SOUTH AFRICA

GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

Applications are invited from suitably qualified persons, regardless of sex, race, colour or national origin for appointment to the following posts:

CHAIRS IN BUSINESS ADMINISTRATION

- Three Chairs are available in the following fields: INDUSTRIAL RELATIONS and/or PERSONNEL MANAGEMENT, where emphasis will be placed on the evolution of Industrial Relations Systems, conflict in the work situation, wage regulating instruments and the legal system governing labour relations in South Africa.
- MANAGEMENT INFORMATION SYSTEMS where emphasis will be placed on business data processing and management of information systems.
- QUANTITATIVE METHODS and in particular the application of modern operations research and statistical methodology to business and industrial problems.

Successful applicants will be required to teach in the Master of Business Administration, in the Higher Diploma in Personnel Management, the Masters degree in Personnel Management, as well as a variety of Executive and Continuing Education courses. Responsibilities will also include the supervision of research reports and theses at Masters and Doctoral level.

Salaries attached to these posts will be within the following range:

Professor: R17,100-R22,200 p.a., plus a non-pensionable allowance of 15% (£1=R1.80 approx.).

The initial salary will be determined according to the qualifications and experience of the successful candidates.

Intending applicants should obtain the detailed information sheets relating to these posts from the London Representative, University of the Witwatersrand, Chicheser House, 278 High Holborn, London WC1V 7HE, or from the Registrar (Staffing), University of the Witwatersrand, Jan Smuts Avenue, Johannesburg, South Africa, with whom applications should be lodged not later than 30th September, 1980.

UNIVERSITY OF TRANSKEI

DIRECTOR OF STUDENT GUIDANCE CENTRE

Applications are invited for the post of Director of Student Guidance Centre, to reach the Registrar not later than October 31, 1980. The Director will have the status of Senior Lecturer.

*Salary Scale: S.A.R.9, 150 X 600 — 13,350 X 750 = 14,850 p.a.
*S.A.R.1.8 = £1.00.

Applicants should be in possession of at least a Masters degree, preferably in counselling or clinical psychology. The appointee will be responsible for all aspects of Educational, vocational and personal counselling of students. The appointee will also be expected to teach one undergraduate and one post-graduate paper in the Department of Psychology.

Applicants should submit a curriculum vitae stating academic qualifications, teaching and research experience, experience in counselling, interest and publications, and names and addresses of three referees.

Further information can be obtained from the **Registrar (Academic and Financial), University of Transkei, Private Bag X5092, UMTATA, Transkei, Southern Africa.**

UNIVERSITY OF NATAL
DEPARTMENT OF ACCOUNTANCY, DURBAN

Applications are invited from suitably qualified persons regardless of sex, religion, race, colour or national origin for appointment to the post of

SENIOR LECTURER/LECTURER

A subvention is payable by the Public Accountants' and Auditors' Board in its discretion to Chartered Accountants (S.A.) who are engaged full-time as Senior Lecturers in the teaching of accountancy students at South African Universities.
Salary in the range

Senior Lecturer:	R12,780-R17,100
Lecturer:	R8,160-R14,850

The commencing salary notch will be dependent on the qualifications and/or experience of the successful applicant. In addition, a service bonus of 93 per cent of one month's salary is payable, subject to Treasury regulations.

Application forms, and conditions of service, including details of fringe benefits are obtainable from the Registrar, University of Natal, King George V Avenue, Durban, with whom applications, on the prescribed form, must be lodged not later than 10th October, 1980, quoting reference Adv. D86/80.

Overseas continued

NORTHERN RIVERS COLLEGE OF ADVANCED EDUCATION
N.S.W.—Australia

PRINCIPAL

Owing to the retirement of the current Principal, the College is seeking a successor to commence duties in October 1981.

The campus of the College is situated in the centre of the City of Lismore on the North Coast of New South Wales. Lismore currently has a population of some 30,000 people and is the centre of the most rapidly growing rural area in the State. Work is about to commence on Stage 1 of a new campus in the City for occupation in early 1982.

The College has students enrolled in four schools: Teacher Education; Business Studies; Scientific Studies; and The Arts. There are currently in excess of 1,000 students enrolled in the various courses.

The Principal is the chief academic and administrative officer of the College and is directly responsible to the Council. The College has an academic and support staff of approximately 150. The position carries a salary of $39,849 plus allowance of $720 per annum and is subject to the standard conditions of service applying in New South Wales Colleges of Advanced Education.

Further information in respect of the College and the duties and conditions of employment will be provided on request.

Requests for further information and applications for the position including the names and addresses of three referees should be sent to Mr J. H. Maxwell, Chairman of Council, N.R.C.A.E., P.O. Box 386, Lismore, N.S.W. 2480, Australia, by 17 October, 1980.

UNIVERSITY OF CAPE TOWN

LECTURER IN QUANTITATIVE METHODS

Applications are invited for the above post in the Department of Business Science, vacant as from 1st February, 1981.

Applicants should have good academic qualifications in Statistics, Operational Research and Computer Science, as well as relevant experience in teaching and/or business. The person appointed will be expected to undertake the teaching of Statistics and Operational Research to undergraduate students in Business Science and to be responsible for the running of computer based simulations and business games which form a significant part of the teaching of the Department. Appointment will be made in accordance with qualifications and experience on the salary scale R6,180 x R360 - R13,320 x R750 - R14,850 per annum.

Applicants should submit a full curriculum vitae, stating age, present salary, relevant business or teaching experience, research interests, and publications, when available to...[illegible] duty, and the names and addresses of three referees.

Further information should be obtained from the Registrar, Room 10, Bremner Building, University of Cape Town, Private Bag 6, Rondebosch 7700, Cape, by whom applications must be received no later than 30th September, 1980.

The University's policy is not to discriminate in the appointment of staff or the selection of students on the grounds of sex, race, religion or colour. Further information on the implementation of this policy is available from the Registrar.

THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem offers a small number of

POST-DOCTORAL FELLOWSHIPS

for the 1981-82 academic year in the Humanities, Social Sciences, Natural Agriculture Sciences, and Medicine.

Candidates may apply at an early stage of their professional career (not later than three years after completion of their doctoral dissertation) to P.O. Box 1255, Jerusalem, Israel.

Completed application forms must be returned by December 1, 1980.

Announcements

UNIVERSITY OF LONDON

DEPARTMENT OF EXTRA-MURAL STUDIES

The University of London offers a Certificate and Diploma in Science Studies (social, philosophical and historical aspects with emphasis on current problems) for busy adults studying partly at home. Particulars Department of Extra-Mural Studies, 26 Russell Square, London WC1B 5DQ.

Colleges of Further Education

LONDON

INNER LONDON EDUCATION AUTHORITY

BARNETT COLLEGE

[illegible] Education Degree [illegible]

FACULTY OF NURSING AND TECHNOLOGY

PRINCIPAL LECTURERS IN NURSING STUDIES

Applications for the [illegible] are invited from [illegible] graduates. Experience in the [illegible] a School of Nursing, the teaching of nursing or [illegible] a degree or higher [illegible] would be an added advantage.

The successful applicant will be responsible for the [illegible] the responsible for a section of the [illegible] will be predominantly [illegible] Education Courses for [illegible] application to join [illegible]

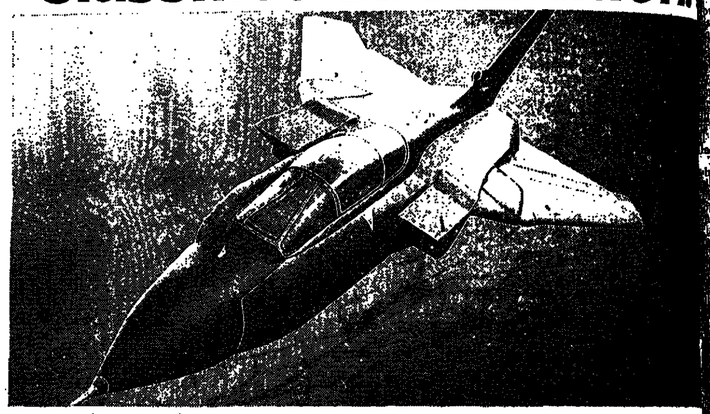
Salary scale £10,935 to £12,[illegible] plus £[illegible] inner London allowance, teaching [illegible] depending on qualifications and experience.

Salary subject to formal approval.

Further information and application forms (stating [illegible] a week of the date of the advertisement) are available from the Principal at the above address. Please quote Ref. [illegible].

General Vacancies

Classified information.



Pass it on.

The principles of electronic warfare. How the RAF uses the silicon chip. The fundamentals of modern engine technology. These are the kind of subjects that would be on your syllabus as an Education and Training Officer in the Royal Air Force. And you'll find that you'll be teaching these subjects in almost ideal conditions.

You'll have the best instructional aids at your disposal. You'll have small classes, generally of around 20 people, ranging from young apprentices and technicians at our schools of technical training to officers on post-graduate courses. And you'll find that those people will be really keen to learn.

But being an Education Officer in the Royal Air Force means doing a lot more than just teaching.

Since you'll be teaching very advanced technology, you'll have to learn much of it at first hand. You'll work closely with our other Education Officers and benefit from their experience. You'll go through the latest publications with a fine tooth comb. And help decide which information should be built into the various courses.

You might visit the research and development departments of both the RAF and our equipment manufacturers. Then, as well as all this, you'll have the varied responsibilities and rewards that go with being an RAF officer.

It's a demanding career, we admit. But the people we're looking for probably wouldn't want it any other way.

If all this has aroused your interest, we'd like to hear from you. We'll then write and explain it all in more detail. We'll tell you about the sports facilities and the social life. We'll give you the details of our gratuity-earning Short Service Commissions which range from 3 to 6 years and also of the 16-year pensionable commission. Then, if you apply and are accepted, we'll ask you to join us on a starting salary which could be as much as £8,713 p.a. depending on your qualifications and experience.

QUALIFICATIONS. You may apply, to be an Educational Training Officer, if you have now or have taught at least one full GCE 'O' level in English Language (or equivalent), three 'O' levels in Chemistry, Physics or Mathematics or a degree in any Engineering subject, or in Physics, Mathematics or a computing discipline. We'd train you for one or two teaching subjects in your field. Please write to Squadron Leader F. L. Graves MSc RAF, Room 2, 58570/3, London Rd, Stanmore, Middlesex HA7 4PZ.

Or, of course, you could call at your nearest RAF Careers Information Office. The address is in the telephone book.

Please send me a copy of your booklet giving more details of RAF Officer Education and Training. I note that my present and/or intended qualifications are:

Formal application must be made in the UK. Upper age limit is 29.

RAF officer EDUCATION & TRAINING

Colleges of Further Education continued

SCOTTISH COLLEGE OF TEXTILES

Department of Management Studies

LECTURER IN COMPUTER STUDIES

Applications are invited from persons with appropriate Honours Degree and/or professional qualifications and/or experience leading to BTEC Degree and Post-Degree level students, to assist in the preparation of CNAA Programmes, and contribute to departmental research activities. Experience in [illegible] analysis/programming desirable. The College has recently acquired an IBM 4331 installation. Salary Scale (under review) £6,060 (19 yrs) rising to £11,007 (25 yrs) plus £[illegible]. Application forms and further particulars from the Head of Management Studies, Scottish College of Textiles, Galashiels, Selkirkshire, TD1 3HF. (Tel.(0896) [illegible]). Closing date for completed forms 30th September, 1980.

Principal
£13,431-£13,849
(Burnham Further Education Group V)
The Halesowen College

This is a new post arising in January 1981 as a result of the Council's decision to establish (in September, 1981) a new Tertiary College in Halesowen to cater for all post-16 Education in the area.

Applications will be by letter and further details are obtainable from the Director of Education, 2 St. James's Road, Dudley, West Midlands DY1 1JQ, ref. 04/PGM. Telephone: Dudley 55433, Ext. 4231.

DUDLEY
Metropolitan Borough

Union view : non-teaching university staff

Backsliding into the myth season

Now that the silly season has passed, with its visions of countless thousands of citizens uprooting themselves to seek work in "prosperous" areas, we come now to the "season of mists and mellow unfruitfulness". I refer, of course, to the batch of conference dates moving off in early September with the Trades Union Congress and sidling along through the political landmines until the crunch of the annual pay debates of the winter.

There are many in universities who would argue that these set-piece occasions have no relevance for university employees, least of all for teaching staffs, and that anyone who's heard it all before. The truth is that they do not want the conferences to appear as holding anything of importance for campus affairs. The "we don't want what's going on here to impinge on our world" line. They are so different from other workers, you know" line. The knockers hold the conferences as targets. There will be the usual cries of "delusion of commission" from the commissioned (though that has sins enough), resolutions of intent following statements of regret, special pleadings for the future, good points, but basically stuff. The truth is that we seem to have been through it all before, last year, and previous years.

As we start the 1980s, the old adage about the more things change the more they remain the same, appears to be in the minds of many people. Politicians and professional commentators, as well as ordinary working people, are seriously talking about the similarities between the early years of the depression and today's bleak prospects. With unemployment well over the two million mark, even the TUC has been prompted to sloganize, "forward to the eighties, not back to the thirties".

Often as frequently, there are references to the striking resemblance between the current position and the times when Ted Heath was the captain at the helm. Certainly, with the miners already making noises about wage negotiations and their willingness to help get rid of this Tory administration, there are obvious connexions between the two ends of the decade. In fact, glanced at quickly, the news items of autumn 1970 could easily lead you to the view that time had stood still for ten years.

The hospital unions and medical associations were hotly debating proposals from the Government on reorganization of the National Health Service; there were rumours that the Prices and Incomes Board was to be wound up, and the strengths and weaknesses of such bodies were under discussion; Professor Clegg was involved in a commission of inquiry into local government pay levels. There were other similarities. The public employees' pay round was led by the manual workers demanding a 20 per cent increase (then 55 bob), which led by the way to the "dirty jobs' strike". The *Daily Telegraph* said the pay claim was handled would test "whether the country now has a Government which can get inflation under control". Opposition MP's, led by Roy Jenkins, criticized the Chancellor of the Exchequer for depending solely on monetarist policies, and Sir Keith Joseph spoke of the Government's small income Tax cut as "a first step . . . a sign of hope".

And yet there were the conferences and the same resolutions, the same fist-shaking, the same old arguments. At the Labour Party Conference there were demands for a clearly defined sense of purpose in order to regain the support and enthusiasm of the workpeople. It was felt that in the wake of an electoral defeat, the Party was beginning to tear itself apart, and it is true that there was a very real uncertainty amongst the leadership. The resolutions to the TUC were mirrors for this year's final agenda. There were spirited calls for opposition to any cuts in public expenditure, demands for more attention to health and safety at work, to the plight of school leavers, and so on.

Also, that autumn saw the Industrial Relations Bill introduced in the House of Commons, legislation designed to disable the trade unions and cripple their activities. The complexity of the terms is amazing. The Employment Act that has just received Royal Assent is based on the same grounds as the old Bill and behind it there is the identical philosophy about unions. They should not have too much power. The lie that they do have too much power is proven when you see thousands of jobs lost each week at a time when workers are reaching deals that guarantee reductions in their families' living standards—surely a peculiar manifestation of power.

But it is too easy to say that we've seen and heard all this before, and that the debate doesn't matter. It is just because there is such a wide and continuing disparity between the power of employers and the weakness of individual employees that the battle is locked between the trade union movement and this and previous Governments. It is why so many resolutions at this congress have been debated and supported time after time before. It is, if you will, a ritual re-affirmation as certain as our summers are uncertain, that the British workers organized through their unions will not lightly accept the strait-jacket imposed in some other lands.

Recent discussions with the national employers elicited the remark that the Employment Act really had nothing to do with universities where closed shops and secondary picketing and the like were unknown. The Act has everything to do with universities and their employees. Things have changed, despite those who wish we were, or still think we are, in the early 1970s or even the early 1930s. All university workers, whether they like it or not, are a part of the mainstream of industrial relations, and although we may be many years behind in terms of organization, wages and conditions, we do not accept that life on campus is and should be different from any other groups. In the same way that the Employers can no longer pretend that they do not have to keep up with progressive standards developing "outside", the non-teaching staffs cannot ignore the wider debates in the trade union movement however remote some may have us believe they are.

Rodney Bickerstaffe

The author is secretary of the Central Council for Non-Teaching Staff in Universities and a national officer of the National Union of Public Employees.

Centralists' battle behind closed doors



Christopher Price

Occasional indications of the [illegible] of the Select Committee re[illegible] higher education seem to [illegible] been drifting into the *THES* [illegible] [just to quell any suspicion [illegible] indications of that committee's conclusions, [illegible] North saying, [illegible] Lambeth, that "not [illegible] any so far", so thoughts for [illegible] might relate to higher educa[illegible] rather than any per[illegible] reports of both persuasions [illegible] the conclusions politicians and the [illegible] assumed to be that far more [illegible] than any differences be[illegible] Left and Right are those [illegible] Centralists and devolvers. [illegible] politicians of both persuasions [illegible] to believe that they should [illegible] plan things from Whitehall to them from there also. [illegible] particularly true of those thrusting young politicians who come straight to Westminster without doing a spell on their local council first. This is really what the war over local government powers between Michael Heseltine and Roy Hattersley is all about—while Roy was being chairman of Sheffield Housing Management Committee, Michael was running a highly centralized and personalized publishing empire. The habits and prejudices of their twenties tend to adhere throughout politicians' lives. I am sure Neil Kinnock would not mind my saying that if he has to err, he does so on the side of centralism. It's not just that he too came straight into Parliament young. He also feels he knows Welsh local government all too well. The Tebbitite prejudices are mirrored by the now standard campaign against "waste" in local government. Now there is no evidence at all that local government generally is any more or less efficient than central government. The orchestrated campaign emanating from ministers and civil servants, and dutifully lapped up in the press (there was a particularly ludicrously exaggerated leader on the subject in the *Daily Mail* earlier this month) has to be examined for the real motivation—a natural political desire to find a scapegoat and turn irritation with bureaucracy against someone else. Certain civil servants feel they just have to murder "profusion" to make their point. Centralism—they forget that it was Mr Pottinger, a senior civil servant, who accompanied Mr Boulson to Peel.

Now what has all this to do with higher education? The short answer is everything. Britain is not alone in its "binary" system. Many other countries have, like us, a nationally financed system of universities and a more locally financed system of "vocational" colleges.

The centralists see Britain run by sets of orders given from above, the devolvers by sets of initiatives taken from below. It is a battle which will never be resolved, though the centralists usually win in the skirmishes. It is a pity in a way that the issue of the financing of higher education stands so squarely in the middle of it, as it wastes energy and delays decisions.

In another way, however, it is a highly instructive argument. It forces in the end everybody concerned to define what "higher education" actually is and ought to be. It is a developing animal. At first it was what you did in universities; then courses you did that needed two A levels to get in to; then degree equivalent courses that did not necessarily need two A levels.

Now all this defining of higher education would not be necessary or even interesting, had not the centralists decided some time ago that such education was to be treated as special. It needed mandatory grants for students, better paid teachers, and better facilities all round than "lower" education, which took place in schools and scruffy looking colleges. Universities, of course, purveyed pure "higher" education, even though they did teach a few adults on the side, whose "higher" status might be questioned by the purists. At any rate the professors and lecturers were certainly all "higher". In local authority colleges and polytechnics, things were a bit more muddled. Obviously some courses, some whole colleges even were "higher". But some were not; and there was grave doubt about some of the lecturers, I gather, of course. But the reasoning went much like this.

Now much of this scramble would be unnecessary if resources were spread more equitably across the whole system. Every adult, if he or she is to do a job properly and become a responsible citizen, needs both education and training at increasingly regular intervals throughout their lifetime. But the centralists create the scramble by dividing the system into artificial levels and encouraging teachers and their students always to aspire to their "higher" ones. The devolvers are happier to trust the system to come out right in the end, and to trust the locals to get it right. Even some of them, to trust the market to get it right. But pursuing that theme would be straying into the Select Committee's deliberations, which I hope will soon be officially unveiled to the world at large.

Don's diary

Monday

A public holiday in Papua New Guinea is a good way to start off any week. It's at least two weeks since the last such holiday. The reason for today's holiday is much more local; it celebrates the opening of the Third South Pacific Festival of Arts in Port Moresby where representatives of 25 oceanic peoples have gathered for a fortnight's cultural junketing. We watched 200 traditional canoes sail into Ela Beach today, in Operation Armada; appropriately they beached alongside the town bowling club. The Governor-General, Sir Tore Lokoloko greeted the arrivals with festival medals incorporating a new seven-sided 50 toea coin minted specially.

Tuesday

Back to work marking assignments from students on the organization of programmes at provincial level for National In-service Training Week. Coffee time produced tales of traffic jams yesterday in addition to the usual crop of sailing or security yarns. Academic topics are rare today, but after all, it is inter-semester break with students many miles away, their rooms occupied by festival participants. I wonder whether they will go on strike over university food. We've had no student strikes this year, yet!

Wednesday

Strikes seem to be as much a way of life here as in England. A rolling strike of dockworkers called off today; a threatened strike of public servants narrowly averted at the weekend. They were claiming rental allowances to cover recent rises in rents; only part of the price increases giving an unprecedented inflation rate over the six months to March of 7 per cent. Happily, public service and university salaries are index linked up to certain levels. Inflation is a good topic for debate this week for parliament sitting in the old hospital building on the hill above Ela Beach. Contracts recently approved for a multi-million *kina* new parliament building made reference to 13 per cent rates of inflation.

Discussions with departmental colleagues to evaluate the first semester programme just completed. Some 50 primary school headmasters study for a part-time diploma over two years. Lahara (Christmas-time long vacation) courses are followed by a programme of fieldwork assignments back in their schools during the school year. We try to visit them all at least once a year, and we have seen about two-thirds of them during first semester. In my 17 months here I have been fortunate to visit 13 of the country's 19 provinces in this way.

Thursday

A circus act rehearses outside my office; not a disrespectful reference to faculty board but a group of festival participants from "down south", local parlance for Australia, home for the majority of expatriates in the country. The circus attracted large crowds on Tuesday night at the university forum, an imposing amphitheatre at the heart of the university buildings. Other performances are given in small horseshoe arenas constructed near major population areas and city markets. Some of these are green oases in a dusty city, so dull and brown from lack of rain, its surrounding hills blackened by the annual efforts of the local pyromaniacs who seem to usher in the "dry" with boxes of matches. Following a city council clean-up of rubbish before the festival, the city streets are brightened with diaphanous multi-coloured banners hanging from electricity poles. Bright clothes and smiling faces of festival visitors contribute to enliven the city and many of the buses have been painted in bright colours.

Friday

Sadly, reports of crowd disorders at one of last night's festival venues, Largo crowds at some events have already caused the organisers to abandon the levying of entry fees. A case of public pressure, literally. It must inevitably affect the festival budget. I wonder who will have to make up the deficit. The taxation department already takes a hefty whack of almost a quarter of my gross salary.

A new teaching fellow appointed to the department to work on our diploma programme. The university's staff development programme has 27 fellows on campus at present in 18 different departments. A further 26 are studying for higher degrees in Australia, New Zealand, United Kingdom, Canada, United States and East Africa. With an established 270 academic posts at present, these represent about a fifth of the posts heading for early localization. Criteria for promotion have recently figured prominently on faculty agenda; some citizen staff feel that present criteria favour expatriates at their expense.

Saturday

Letters to post today if they are to reach London by Monday or Tuesday, via Hong Kong. On other days, mail sent via Australia or Japan may take 10 days to reach United Kingdom. We have nevertheless good telephone links with home and from the United Kingdom it is possible to dial us direct at about £1 a minute. All the local radio-telephone booster stations are operated on solar energy, the first country in the world, I believe, to do so. We are threatened with increases in electricity charges to pay for gas-turbine generators needed to boost the city power supply; low rainfall is adversely affecting the hydro-electricity sources of energy. Petrol has increased in price by 50 per cent in 16 months but is still only the equivalent of 85p a gallon.

Arrive home to find a *wantok* visiting us, the local word for someone from the same town or district (one-talk). In this case a university colleague, who, whilst his wife used to attend my old school in United Kingdom, in the Papuan New Guinea context "wantokism" is seen as a threat to efficiency, as a result of demands of extended families on those in positions of authority.

Sunday

Have to find time to study the agenda for Monday's housing allocations committee. I represent the overseas academic staff association. We never have enough houses to go round and overseas staff have a contractual guarantee of a roof over their heads. There appears to be a perennial shortage of funds for maintenance and there is wide variation in standards of provision in painting, furniture and fittings.

This provides, of course, an endless topic of conversation for ladies' coffee mornings, and men's sessions round the evening kegs of ale. During the festival there has been a 17-day ban on take-away liquor sales in the city, as many recognise a close correlation between drunkenness and crime. Others blame unemployed youth for petty theft and worse, "rascals" is the local euphemism for thieves and thugs. The campus is divided today, between those who think we should sell to golf or goggle to bush-walk or barbecue, and those who potter round the garden or house. Today we potter, tidying up in anticipation of our United Kingdom leave. Some new staff members may be using the house in our absence, until the new houses under construction are finished. Nine weeks away in United Kingdom. It is interesting to speculate on the changes we may find here on our return.

Noel T. Boulsover

The author is a lecturer in the education department of the University of Papua New Guinea.

Ted Wragg



The summer vacation has a different rhythm to it I found July was just as busy as June, but not in the same way. It began with degree ceremonies. Last year one mother had too much to drink and went up to various academics asking if she could try on their hats while her beetroot-faced daughter hid in the car park. Nothing like that this year. By the way, given honorary degrees to musicians. A magnificent recital by John Lill certainly beats the usual speeches. One year we shall have the courage to give a D. Litt to a stripper.

The campus and city teem with the tourist trade, everything from the senior citizen specialist holidays, with their grab-a-granny discos, to junior psychopaths destroying the landscape under the pretext of learning English. I half expect to see the registrar dressed in a red jacket singing "Good morning campers". I reprimanded two French youths for gouging the sacred turf on the games field and received a torrent of Gallic abuse. "Who beat Napoleon, then?" I yelled back silently. This year's foreigners have really been hit with the ugly stick and bring out the chauvinist in me.

One attractive feature of the vacation is to be able to attend a few conferences. My first visit to a Scandinavian one was very exciting despite the unintentional put-down of the charming Norwegian professor who introduced me by saying: "We are delighted Professor Wragg is able to give the opening address at our conference because neither Professor Peters nor Professor Hirst was able to accept our invitation."

By coincidence the very next conference produced a similar opener: "I should like to welcome Professor Wragg who is giving the first lecture", the chairman began. "As you no doubt know he is currently directing a DES funded project looking at . . . er . . . investigating . . . or . . . " "Teacher education", I hissed as she fumbled through her notes.

A major problem at this time of year is the forward diary. It is easy in quieter August to accept an invitation to join a CNAA rallying party assaulting some hapless college in October and forget what a hectic month that is. In my case I limit myself to one such foray a year. There is something very rude about trampling through someone else's shop handling the merchandise. All members of CNAA rallying parties, be they in the public or private sector, should in turn have their premises desecrated by their victims.

One most pleasant event during the vacation was meeting Professor MacFarlane at East Anglia, whom I last saw 21 years ago. We found ourselves on the same interviewing panel in 1959, as an undergraduate I heard him give a single lecture which persuaded me to read several periodical articles, study one writer in depth and maintain a lifelong interest in the topic.

Most of my colleagues have now scattered across the globe on field trips to Greenland and holidays in Mesopotamia, and when I have managed to snatch time myself I usually put him on the top of my pile. Alas, Laurie Taylor, I am off to a remote part of Minorca for two years and cannot fulfil my promised role of host-cum-drinking companion to you. But it is just as well, for I am told this is the warm weekend to be away from it all. Hailey, send a cheery postcard and let me know how you get on with your summer holiday reading. I must go away now and write my funeral oration.

LETTERS TO THE EDITOR

Mandatory grants for Buckingham students

Sir,—Why are you so hard on Buckingham? In the eminence of its governing body, the academic distinction of its first and second principals, the high standing of its external examiners and in its research effort, Buckingham already possesses essential notes of a good university. It is active in securing the financial and physical resources necessary to build strong academic departments. Why is so sound a start so unwelcome?

You carp on Buckingham's "inexperience". Others will applaud the skill which has brought about an extension of the mandatory grant principle into a new area of higher education. If these grants can be made for two-year, eight-term, *full-time* courses, why not also for four-year, twelve-term, or indeed term-loss, *part-time* coures? A useful precedent has been created.

Mandatory grants are for students, not institutions, and Mr Carlisle's decision would be a "bonanza for Buckingham" only if the grants also drew in a student-number related recurrent grant.

Only if mandatory grants were to be awarded to under-qualified students not eligible to go to other universities would there be any additional cost to public funds and only if a recurrent grant from the Government were solicited would there be any breach of Buckingham's principle of independence.

If either of these events were to occur, your criticisms would become valid. Until that time, the small addition at Buckingham to the variety of our institutions of higher education surely need not cause you such alarm.

Yours faithfully,
H. L. SNAITH,
5 Towers, Soberton, Hants.

PhD in social sciences

Sir,—Recent articles and letters on the important topic of the PhD in the social sciences have concentrated on the difficulties of working alone, the poor completion rates and the inadequacies of supervision. However, little attention has been given to whether the PhD, as currently pursued, represents an adequate training for a career in social research. The question is opportune since the doctorate has become the seal of approval in today's buyers' market for academics and with the paucity of teaching jobs more and more successful PhDs are turning to research based careers.

The issue would seem to involve two separable problems. First, is the PhD an appropriate vehicle for research training or would it be better to look to the specialist taught Master's degree—some of the best of which are available on an in-service basis—to provide research competence? Secondly, if the PhD is the most appropriate qualification, does it provide the holder with an adequate understanding of research methodology and methods of data analysis? Of course, the two problems are not unrelated and some of us feel that the choice has to be between radicating the PhD towards the mid-Atlantic model proposed by the Economics Department of the LSE (*THES* June 6) or promoting the specialist Master's course. There is considerable support for the view from both researchers and their employers that the average social science post-graduate rarely possesses the technical knowledge or range of skills to make an effective social researcher.

The Social Research Association, which represents approximately 700 social researchers in a wide range of employment, has an active interest in this topic and has recently appointed a sub-committee to examine the state of research training in Britain. We would be delighted to hear from anyone with information or views that this committee might usefully consider.

Yours faithfully,
MALCOLM CROSS,
Vice-chairman,
Social Research Association
35 Northampton Square,
London, EC1.

Training of lecturers

Sir,—Ray McAleese is quite right in pointing out that a fair amount of lecturer training is taking place and likely to continue to take place, whether there is a CCTUT or not, and that both the NUS and AUT should recognize this in their present comments on the GVCP decision to discontinue CCTUT. What has to be said, however, is that such training provision at present is patchy and nowhere remotely adequate, a fact which is conveniently ignored by the complacent GVCP statement.

The shift in emphasis which is required is one which would increase the provision of staff training everywhere and make it more uniform. Only a national committee, which has the full support of the GVCP is likely to achieve that. It is also what was asked for by the Review Committee in its "guide" to the GVCP. In rejecting this report, which itself commissioned, without presenting reasoned arguments to support this rejection, the GVCP is not acting in the best traditions of academic debate and inquiry.

Yours faithfully,
I. R. ELTON,
University of Surrey.

The nature of freedom

Sir,—Professor Szczepanski's article, "In the marginal concern of a Monday morning", and Professor Rudwick's letter (August 22) are pleasantly complementary. In the context of the debate on academic freedom.

Freedom is meaningful when circumscribed. Circumscribtion is plausible if it is generally acceptable by you or me when it is grounded in a theory of freedom that transcends expediency. The peculiarity of universities—monastic and secular, medieval and modern—lies in their *explicit* recognition that a controlling metaphysic is the host spur to thought. On this criterion, Professor Rudwick is right to resign, while Professor Szczepanski is right to stay at his post.

Pace Professor Szczepanski, however, the university stands by common consent for some value that must not be exiled by the Monday morning realities of everyday life. This transcendent something is not the vacuous thing customarily called "academic freedom". It is something more like the habit of trained thought, perhaps. But each of us must define it, so that we either go, with Professor Rudwick, or stay with Professor Szczepanski.

Yours faithfully,
MICHAEL TAYLOR,
Senior lecturer,
Department of English Philology,
University of Poznan,
Poland.

Tropical medicine

Sir,—I was recently reading a section on health in the Brandt Commission's report. After statistics of the number of sufferers from various tropical diseases, including one billion at risk from malaria and 35 million affected by sleeping sickness, the report says:

"The eradication of these (tropical) diseases requires international support: the scale and complexity and the costs of technology to cure them are beyond the means of these poor countries. . . . Local efforts are made to defray expenses, but it is hard to sustain a disease eradication expenditure of $40 a head when the average income is only $435 and international aid is essential."

Immediately after reading this I picked up the *THES* and saw that the Overseas Development Administration, which is part of the Foreign Office, will no longer be able to find its half of the Tropical Medicine Research Board's costs in future. The sum involved is over £1m, but surely in terms of government spending this is a small sum.

Yours faithfully,
PAULINE FORD,
University of Bradford.

Arab students in Israel

Sir,—In his article about Arab students in Israel (*THES*, August 15) the author presents a rather slanted viewpoint, depicting (of course) the zionist state of Israel as the villian of the piece. May I respectfully point out that:

1) Israeli Arab citizens of Israel, while enjoying full civil rights, are exempt from the three years compulsory military service for which *all* Jewish Israelis are liable.

2) Arab Israeli students are frequently financially far better off than their Jewish compatriots since their parents are exempt totally from the considerable proportion of Israeli income tax earmarked for defence.

Is it not surprising that resentment is engendered when Arab students are perfectly willing to utilize the facilities provided by the state of Israel whilst constantly calling for its destruction? Surely a more positive attitude by the Arab students is in order.

Lastly, I'm sure the imprisoned Jews of Syria would be only too grateful to be treated as "badly" as Arabs are in Israel.

Yours faithfully,
J. I. WYSIE,
Queen Mary College, London.

Cuts in adult education

Sir,—Now that unemployment figures have passed the two million mark it is surely time for both the Department of Education and Science and the local authorities to reconsider their attitudes to education for adults. Because adult education (quite rightly) has a high proportion of part-time tutors, often without contracts it has been, on numerous local authorities, a target for unfair amount of cuts. In many terms the money saved has not been substantial but the effect has been devastating. The adult education programmes which are being offered in September are almost everywhere a severely truncated version of previous offerings, offerings which in comparison with other advanced industrial countries were woefully inadequate. What a time to choose to indulge in such a misbegotten enterprise.

One realizes what our education leaders are doing, one only wonders what they think they are doing. What they are doing is to take away hope from large sections of the population. Adult education even in its miniscule British version has afforded hope to many people. It has given hope to those having to change their employment to something completely different. To surely it is not only cruel but also stupid to expect a person who has spent years in one type of occupation to move to another without a period of reorientation. Surely it is utterly unrealistic to think that people who have been unaccustomed to the discipline of study are able immediately to respond to an intensive course in an area of knowledge which is unfamiliar. Is it possible that our educational and political leaders of all persuasions cannot see that a crucial role for adult education is inevitable? Will the ACASE report be shelved like so many of the other sensible documents which have been published over the years? One fears that when they are compelled by force of circumstances to think again the damage will be irreparable. Will the infrastructure will have been largely destroyed.

At the moment we have unemployment caused mainly by the current recession. In the immediate future we shall have unemployment (especially among white collar workers) caused by silicon technology. One does not have to look at apocalyptic vision of the consequences of that technology to see that it will have a major impact and it will not be in a large measure a job creator. Is it possible that for once, with the information we have available in the earlier prognostications of government departments, private industry and the trade unions, that we can anticipate events in an intelligent way instead of the untravelled question of "Oh, what a shame" after the event and the bitter recriminations when the full extent of the burden of the reduction of overall expenditure is to be borne by the local authority sector.

Yours faithfully,
VINCENT HOUGHTON,
Senior Lecturer, Department of Educational Studies, The Open University.

Letters for publication should arrive on Tuesday morning at the latest. They should be as short as possible and should be written on one side of the paper only. The editor reserves the right to cut or amend them if necessary.

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A new ice age, not a flood of cuts, is the threat today

The 1930s have become a popular, if not very exact, image in this summer of half a century later. Unemployment has increased to its highest level since 1937 (although this crude comparison conceals many and various mitigating circumstances), so regaining its place as the outstanding political fetish-issue from inflation which had displaced it in the 1970s. The Trades Union Congress has adopted as its rallying call "Forward to the 1980s—not back to the 1930s", which is dismissed on the right as a self-interested slogan although the rest of us may pause to remember that the TUC in the 1930s proposed policies very reminiscent of those adopted in the postwar prosperity, and so could be said to have got it right once already. Social services, including education, are again being sacrificed on the altar of some fierce monetarist god, although the cuts so far have not turned out to be the Aztec-style slaughter that the extreme partisans of one side depict and those of the other desire.

Many people on the right resist this analogy with the 1930s. They point out, with some justice, that living standards are immeasurably higher and material deprivation by any objective standard immeasurably lower; that social values have undergone a quantum shift which means that apparently similar conditions are experienced in quite different ways; and that, although both may be in "steady state", the bloated public services bequeathed by the prosperous leftish 1960s cannot be compared with the drastically attenuated public services that existed at the beginning of the 1930s, in terms of either the misery that their providers might suffer or the deprivation that their clients might experience.

This point of view is half fair, and deserves to be given some weight because it helps to put the present cuts in higher education in proper perspective. Three points perhaps deserve to be made in this context. First, under level funding (even if it slopes down a bit) the present commitments of public resources to higher education and will remain very substantial. Second, the cuts in spending on higher education have been much less than those in other publicly provided services, particularly housing and transport. Third, the "efficiency gains" had been cut very low (within the important exception of the still unresolved question of overseas students) and the greatest part of the burden of the reduction of overall expenditure is to be borne by the local authority sector.

Internal glaciation may become difficult to resist

Of course, the position may worsen if new cuts are imposed. But present Government has already expended its energies in making direct cuts, and that, as inflation slowly and fitfully declines the potential for making much more damaging indirect cuts by withholding adequate compensation for price and wage rises will be correspondingly reduced. It will perhaps be optimistic prospect turns out to be true, then the analogy with the 1930s is not a material aspect will appear wide of the mark, at least in relation to higher education. Instead, concentration on the cuts may have three unfortunate consequences. It may crowd out important second-order questions about research, between teaching and research, between vocational and non-vocational courses, between universities and polytechnics and between higher education and other forms of education. It may encourage a Verdun-style resistance to any change, good as well as bad. And it will destroy optimism and so encourage the very conservatism it is designed to combat.

Indeed, it can be argued that in this respect the 1980s could be a more dispiriting period for higher education than the 1930s. Half a century ago the expectation of continuous expansion was much less, and in particular the link that today seems from between expansion and change, between more and better, was much weaker. In the 1930s universities were much less formal institutions; the relationship between bureaucratic procedure and academic development was much looser.

Today academic development is much more dependent on outside stimulation that is expressed through essentially bureaucratic channels. Expensive scientific research is in effect determined by the policies of the Science Research Council and a small number of other extra-university agencies. Even in the much more diffuse area of the social sciences the Social Science Research Council is a commanding height to which all must defer or be starved of the resources for their research. Only perhaps in the traditional humanities has the process of scholarship and research remained comparatively unbureaucratized, but even here the policy of the UGC on lecturership and the general level of the university grant have a highly significant influence on its pattern.

All this is the price of expansion: in the 1980s it may turn out to be the penalty of decline. Half a century ago higher education, as an activity, and higher education as an enterprise, was much more autonomous from its bureaucratic carapace. Today it has become much more dependent on external stimuli and encouragement. If these stimuli become weak or disappear altogether, as they may well do in the next few years, what will become of the academic enterprise itself? Will it atrophy alongside the ill-maintained buildings and in the overcrowded lecture halls? Much the same point can be made about teaching as well as research. It too has become highly dependent, perhaps over-dependent, on external stimuli like an ever increasing supply of students and of resources to ease the path of change and development.

This last point is especially important. It is occasionally assumed, especially in the universities, that higher education can turn aside for pursuing the wider social goals which it was expected to pursue until recently—or at any rate defer their pursuit—while maintaining its intellectual vitality still. This, indeed, seems to be becoming an almost instinctive strategy for survival. Yet it is doubtful if this is really possible. That intellectual vitality has always depended in important respects on the parallel task of pursuing wider social goals, of expanding the contribution of the university to wider society, and this dependence has increased to an almost incestuous degree in the past 30 years.

A similar chill will be felt in our intellectual culture

At its simplest the latter has provided the resource base for the former, but in a deeper sense it has also provided the inspiration as well as the opportunity for important intellectual progress. The development of the social sciences (and of many humanities subjects) could hardly be conceived, even in their most theoretical aspects, without the great changes in society that were contemporaneous and to which higher education, as a set of social institutions, so prominently contributed. The same can be said of technology quite obviously, and even of the natural sciences. Knowledge cannot ever be divorced from its social context, particularly in a pluralist society. If there is an ice age in our political culture, it seems a reasonable assumption that there similar chill will be felt in our intellectual culture as well.

If this argument is accepted, the implications for higher education of the present climate of cuts are serious indeed. It is not simply that the resources available to universities, polytechnics and colleges are being reduced—as has been argued that reduction is not likely to be in any realistic sense fatal—but that the morale of the system is under attack. On the one hand the fatal cuts, absolute as they may be, is an indication of the low priority placed by the nation's leaders on academic concerns and exposes their essentially philistine and materialist view of the world. On the other the abandonment of the search for wider social goals, which is heavily encouraged by the present cuts, could in a more fundamental sense undermine the health of higher education's intellectual culture, or at any rate prevent its future growth.

The issue is stark. In British society the values of humane knowledge, academic freedom, and critical inquiry are located most firmly in a set of institutions that have a narrow social base and as a result are highly vulnerable to political subversion. Present policies will make that base no wider and probably narrow it further, so the threat to these values, so central to the whole academic enterprise, will become greater. British higher education at the beginning of the conservative 1980s faces three threats: the actual cuts which are less important in themselves; the Verdun-style resistance to cuts which may reduce still further the system's limited capacity to change; and most important of all, the possibility of a conservative closure of our academic and intellectual life. The danger is not the sudden flood but the new ice age.

Coming to terms with a new term



William Taylor

Dear Friends,

We would be wise not to be distracted by the so-called Revolt of the West and the Open letters and the Gang of Three and quips about when Roy is due to land at Dover. No one knows what the scene will look like after the conferences and how many will scamper off their respective battlefields looking for a new home. We must be ready, and reluctant as I was to convene Working Party 3 (Education) I did promise to pass on any ideas about policy before we next gather. I had better do so now before term starts and we all get taken up with watching the ticker tape on overseas recruitment.

We agreed when we last met that we wanted something distinctive, that would properly reflect the poll findings that people care more about education than about employment, incomes and foreign relations. Yet the suggestions that have come in are not terribly exciting. Ingredients for a policy they look rather ordinary. It will not be enough to mix them differenly and alter the colour of the icing. The competition is bound to claim that the taste is familiar.

Part of the trouble is that the only electorally attractive statement to be made about things that everyone agrees are good is the need for more of them—teachers, books, lab equipment, GCSE, pass the loo. And that does lose some of its attraction when we get on to how they are to be paid for and the views that some of the other working parties are likely to have about priorities in public expenditure. The "quality rather than quantity" angle that some of you stress has been tried already. Voters think it is a con—especially those being asked to give up their bit of quantity for the sake of someone else's quality.

There are plenty of good individual ideas for assembling them into a coherent alternative policy that's the difficulty. Some of you want to look harder for attractive educational alternatives to unemployment and to revive the idea of a youth wage in the context of a really serious attempt to think through the prospects of recurrent education in a world of micro-chip technology. The need to coordinate diverse local responses to the effects of falling rolls on secondary curricula and opportunities is also suggested. The idea of specific education contributions on a PAYE basis to replace tax and rate support will need some further thought. I wonder if those of you who are sympathetic to some form of controlled social transformation or to the latest set of manpower forecasts. At the same time, we need programmes of social and economic intervention that really do something to help those at present least able to benefit from an academic and scholarly culture that is *everybody's* heritage. Mix up educational, social and economic considerations and we're lost. Recognize that each kind of policy has its own imperatives, the relations between which may be conflicting, and perhaps we shall get somewhere.

Thursday the 23rd, 7.30 at my place?

Yours,
Ed.

